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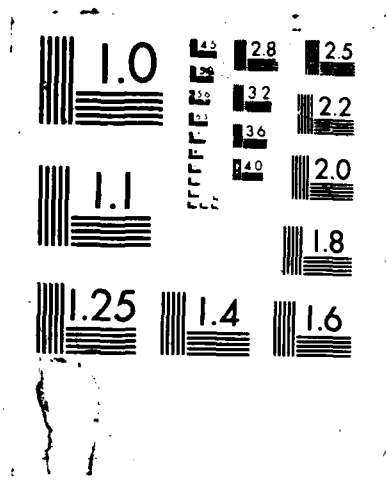
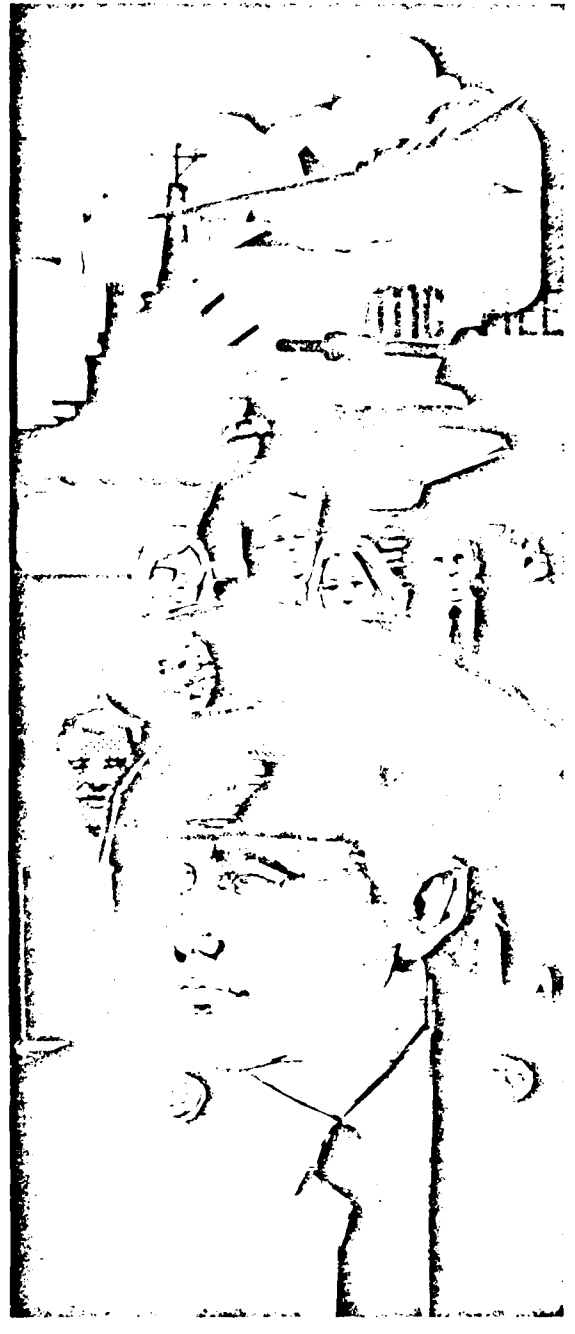UNCLASSIFIED   F/G 5/9   NL

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The Military Manpower Training Report of the Secretary of Defense is submitted to the Congress annually. It specifically supports the Department of Defense request for authorization of average military student training loads for each component, active and reserve, of each Service. It recommends the average student load for each category of individual training and education and includes justification for, and explanation of, the average student loads recommended.

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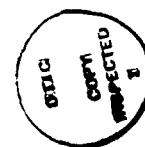0102-LF-014-6602

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MILITARY

MANPOWER

TRAINING

REPORT

FOR FY 1983

DEPARTMENT OF DEFENSE
March 1982

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Prepared by

Office of the Assistant Secretary of Defense
(Manpower, Reserve Affairs and Logistics)

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EXECUTIVE SUMMARY

The Military Manpower Training Report of the Secretary of Defense
is submitted to the Congress in accordance with 10 U.S.C. 138(d)(2),
which states:

> The Secretary of Defense shall submit to Congress
> a written report, not later than March 1 of each fiscal
> year, recommending the average student load for each
> category of training for each component of the armed
> forces for the next three fiscal years, and shall in-
> clude in that report justification for, and explana-
> tion of, the average student loads recommended.

This report specifically supports the Department of Defense request
for authorization of average military student training loads for each
component, active and reserve, of each Service for Fiscal Year 1983.
Requested training loads are shown in the following table.

Requested Training Loads, FY 1983 and FY 1984

	FY 1983	FY 1984
Active Components		
Army	78,311	74,650
Navy	66,930	65,635
Marine Corps	20,435	20,279
Air Force	48,769	48,018
Subtotal	214,445	208,582
Reserve Components		
Army National Guard	18,052	18,090
Army Reserve	14,579	13,292
Naval Reserve	1,000	998
Marine Corps Reserve	2,971	2,988
Air National Guard	2,378	2,327
Air Force Reserve	1,351	1,349
Subtotal	40,281	39,044
TOTALS	254,726	247,626

The requested loads are consistent with the President's Budget for
FY 1983 and the Department of Defense request for authorization of
military manpower strengths, active and reserve, as submitted in February
1982.

Definitions and Explanation of Training Loads

This report discusses the training and education of individuals within the Department of Defense, as opposed to the training of operational mission units or crews. Individual training and education, for purposes of this report, is divided into six categories:

- Recruit Training, given to enlisted entrants to the Services who have not had previous military service.

- One-Station Unit Training, an Army program which combines Recruit Training and training in certain skills into a single continuous course.

- Officer Acquisition Training, which leads to a commission in one of the Services.

- Specialized Skill Training, needed to prepare military personnel for specific jobs in the Military Services.

- Flight Training, primarily for prospective pilots and navigators before they receive an initial operational assignment.

- Professional Development Education, relating to the advanced professional duties of military personnel or to advanced academic disciplines to meet Service requirements.

"Training loads" are the average number of students and trainees participating in formal individual training and education courses during the fiscal year. For a full fiscal year, training loads are the equivalent of student/trainee manyears for these participants, including both those in temporary duty and permanent change of station status.

The requirement for training in a baseline force is derived from the need to replace losses in each skill required in the military force structure. Losses, through separations, promotions and other causes, are projected at various points in the future and compared to the projected inventory of trained personnel. The deficit between the requirement in each skill and the inventory becomes a demand for an output of trained personnel. A phased input of students to the training establishment is then scheduled so that trained personnel, in each skill and skill level, are available at the proper time to replace the losses in those skills. The resulting workload placed on the training establishment is the basis of the training loads addressed in this report.

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The training load for each component is the measure of the amount of training required for the members of that component, although some of the training will be done by other Services, in DoD schools, or in some cases by institutions outside the Department of Defense. The training of members of the Reserve Components included in the report is the formal school training provided by the active training establishment to individual members of the Reserve Components while they are on active duty for training; this is primarily training provided to non-prior service personnel entering the Reserve Components.

An Overview of Training Loads

During FY 1983 and FY 1984, total requested DoD training loads will range between approximately 254,700 and 247,600. About 86 percent of these annual loads is composed of training for members of the active forces; the remaining 14 percent of these loads is training for members of the Reserve Components, while on active duty, conducted by the active training establishment.

The following table displays the percentage of total active force loads and the percentage of total Reserve Component loads attributable to each of the major categories of training in FY 1983.

Percent Distribution of Training Loads, FY 1983

Training Category	Active Forces	Reserve Components
Recruit Training	21%	29%
One-Station Unit Training	8%	27%
Officer Acquisition Training	9%	1%
Specialized Skill Training	55%	40%
Flight Training	3%	2%
Professional Development Education	4%	1%
Total	100%	100%

It will be noted that the preponderant categories of training, in terms of training loads, are Recruit Training and Specialized Skill Training, both of which, along with One-Station Unit Training, are strongly influenced by the number of enlisted non-prior service accessions to the force. Other types of training -- all of Officer Acquisition Training, for example -- are also driven by the number of new accessions to the force. The following table divides the requested training loads for FY 1983 into two parts: training that is primarily accession-related, and is conducted for the purpose of turning a civilian into a qualified servicemember with a usable military skill; and other training, which, for the most part, is conducted for the purpose of preparing members in later stages of their military careers for more demanding duties.

Accession-Related Training and Training Loads, FY 1983
(Thousands)

	Active Forces	Reserve Components	Total Active & Reserve
Accession-Related Loads			
Recruit	44.3	11.7	56.0
One-Station Unit Training	18.2	11.1	29.3
Officer Acquisition	18.5	0.4	18.9
Initial Skill (Officer & Enlisted) a/	71.1	13.4	84.5
Undergraduate Flight	6.3	.6	6.9
Subtotal	158.4	37.2	195.6
Other Loads			
Other Specialized Skill	46.1	2.8	48.9
Other Flight	0.7	0.1	0.8
Professional Development	9.2	0.3	9.5
Subtotal	56.0	3.2	59.2
Total Load	214.4	40.3	254.7
Accession-Related Loads as Percent of Total Loads	73%	92%	76%

Note: Numbers may not add to due to rounding.
a/ In some cases, includes some training for prior-service personnel or personnel who receive the training at a later stage in their career.

As the table shows, training primarily related to new accessions amounts to about 73 percent of all training programmed for the active forces in FY 1983; only about 27 percent is for subsequent training. The comparable proportions for the Reserve Components are about 92 and 8 percent. The concentration on accession-related training demonstrates the priority the Services place on training intended to produce new servicemembers who are motivated, amenable to discipline, and capable of productive service as members of military organizations.

The following table shows the trend in training loads.

Active and Reserve Training Load Trends by Service,
FY 1973 - 83
(Thousands)

	FY 73	FY 80	FY 81	FY 82	FY 83	Percent Change FY 73-83	Percent Change FY81-83
Active Forces							
Army	109	78	70	73	78	-28%	+11%
Navy	77	58	63	63	64	-13%	+ 6%
Marine Corps	30	19	20	20	20	-33%	- 0%
Air Force	59	42	43	45	49	-17%	+14%
Total Active	274	198	196	200	214	-22%	+ 9%
Reserve Components	25	28	32	38	40	+60%	+25%
Total DoD	299	226	229	237	255	-15%	+11%

Note: Calculations are affected by rounding.

The following table compares training loads by the major categories of training.

Active and Reserve Training Load Trends by Training Category
FY 1973 - 83
(Thousands)

	FY 73	FY 80	FY 81	FY 82	FY 83	Percent Change FY 73-83	Percent Change FY81-83
Recruit	94	51	52	53	56	-40%	+ 4%
Officer Acquisition	20	17	17	18	19	- 5%	+12%
Specialized Skill	157	115	121	127	133	-15%	+10%
Flight	9	5	7	7	8	-11%	+14%
Professional Development	19	8	8	9	10	-47%	+20%
One-Station Unit Training	-	29	23	24	29	--	+26%
Total	299	226	229	237	255	-15%	+11%

Note: Calculations are affected by rounding.

The training loads reflect shifts in resources and training capacities to complement force plans. Total training loads increase by over 26,000, from 229,000 in FY 1981 to 255,000 in FY 1983. The growth in Specialized Skill Training accounts for much of the increase. In addition, the Air Force plans to extend the length of Initial Skill Training by one week. Both the Army and Air Force will increase flight and flight-related training. In Professional Development, the training loads reflect a small increase in Enlisted Leadership Training and better management of the graduate education loads. These initiatives are detailed in the following Chapters III through IX.

Funding for Individual Training

Funds required to support the training in the training load request for FY 1983 total approximately $12.8 billion. This amount includes pay and allowances for the students undergoing training, pay and allowances of military and civilian personnel in support of training, operations and maintenance costs, and training-related procurement and construction funded in FY 1983. The following table displays total training costs for each Service.

Funding of Individual Training by Service, FY 1983
($ Millions)

Army	Navy	Marine Corps	Air Force	DoD
$5,144.6	$3,464.3	$891.5	$3,270.2	$12,770.5

The same funding is shown below for each of the major categories of training and for related support and travel.

Funding of Individual Training by Training Category, FY 1983
($ Millions)

Recruit Training	$ 871.3
Army One-Station Unit Training	332.0
Officer Acquisition Training	375.6
Specialized Skill Training	2,882.5
Flight Training	1,825.3
Professional Development Education	426.9
Medical Training	431.0
BOS and Direct Training Support	3,411.4
Management Headquarters	117.5
PCS Cost for Training	718.0
TDY and Reserve Component Pay and Allowances	1,379.0
Total	$12,770.5

Note: Numbers may not add due to rounding.

Funding estimates are based on data contained in DoD's Five Year Defense Program (FYDP). This report is consistent with resource estimates in the President's budget, the justification material submitted to the Congress, the Five Year Defense Program and other internal DoD management reports.

Manpower for Individual Training

Individual training requires manpower to conduct and support instruction, manage military schools and training centers, maintain training bases and provide support to students, military staff members and their dependents. Chapter IX of this report provides an analysis of military and civilian manpower in individual training. Manpower in support of individual training for FY 1983, by the general functions it performs, is shown in the following table.

DoD Manpower in Support of Individual Training, FY 1983
(End Strength, Thousands)

	Military	Civilian	Total
Training and Direct Training Support a/	93.8	16.3	110.2
Base Operating Support	38.0	40.5	78.6
Major Training Headquarters	1.9	1.8	3.6
Total	133.7	58.7	192.4

a/ Includes instructors, instructional support, school/training center administration, student supervision.

The estimates for supporting manpower in this year's report are based on FYDP data. The following summary shows manpower in support of individual training is slightly higher (+6%) in FY 1983 than in FY 1981. Base Operating Support has been reduced in prior years and continues a gradual decline between FY81 and FY83, down -12%. Manpower at major training headquarters remains unchanged. Overall, the total manpower declines show reductions in manpower for Base Operating Support which have not been offset by the increases in Support for Individual Training.

Trends, Manpower in Support of Training, FY 1977-83
(Combined Military and Civilian End Strengths, Thousands)

	FY 77	FY 81	FY 82	FY 83	Percent Change FY 77-83	Percent Change FY 81-83
Training and Direct Training Support	130	104	108	110	-15%	+ 6%
Base Operating Support	81	89	83	79	- 3%	-11%
Major Training Headquarters	4	4	4	4	(no change)	
Total	215	196	194	192	-11%	- 2%

Training workloads -- that is, all students trained including DoD military students, foreign students and students from other U.S. agencies -- have increased as the following table shows.

Training Workloads, FY 1977-83
(Thousands)

FY 77	FY 81	FY 82	FY 83	Percent Changes	
				FY 77-83	FY 81-83
238	246	252	267	+ 12%	+ 9%

The stability in training manpower with the increase in training workload shows a productivity improvement in the Service training establishments. This is consistent with DoD's general emphasis on increased efficiency in support areas.

The Necessity for Good Training

The objective of individual training is to provide the operational forces with personnel adequately trained to assume jobs in military units. Without effective training and education programs, the operational forces would be manned with personnel who are less than fully qualified for their jobs. Since the nation cannot predict when or where war may break out or count on an extended period for mobilization, we must have effective individual training to assure that our operational units are capable of carrying out national security missions in peace or war.

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Military Manpower Training Report for FY 1983

I

INTRODUCTION

Training Requirements and Manpower Requirements

Requirements for training and education of military personnel are derived ultimately from basic national security objectives. This Report, the Report of the Secretary of Defense to the Congress on the FY 1983 Budget, and the Defense Manpower Requirements Report, describe the progression from national security objectives to training load requirements. The Report of the Secretary of Defense explains the relationship between the threat and the forces designed to cope with the threat. The Manpower Requirements Report relates these forces to the requirement for trained manpower to man the forces. The Military Manpower Training Report takes as a starting point the requirement for trained military manpower described in the Manpower Requirements Report. It then describes how these requirements relate to the demand placed on the military training establishment to supply this trained manpower, and how this demand leads to the DoD request for military student training load authorizations for each component of the Military Services. The Manpower Requirements Report and this Report are mutually supportive; however, the data in the two reports are not interchangeable or directly comparable. The principal reason for this difference is that the main focus of the Manpower Requirements Report is upon requested strength on the last day of fiscal years (that is, end strength), whereas the main focus of this Military Manpower Training Report is upon requested student loads, a concept more comparable to average strength, or man-years, than to end strength.

Definition of "Individual Training and Education"

This report addresses the "individual training and education" activities of the Department of Defense. These involve the training of individual military members in formal courses conducted by organizations whose predominant mission is training; this training is to be differentiated from training activities conducted by operational units incidental to their primary combat, combat support, or combat service support missions. "Force support training," the training of organized crews and units for the performance of specific missions, is not included in the training loads discussed in this report, but is discussed in the Manpower Requirements Report. In certain categories of training, on-the-job training (OJT) in units supplements or substitutes to some extent for all or part of formal course training requirements; OJT is also not included in the training loads discussed in this Report.

The purpose of individual training and education is to give the individual servicemember the skills and knowledge that will qualify him or her to perform effectively in subsequent assignments as a member of

an operational military organization. "Individual training and education" includes all formal military and technical training and professional education conducted under centralized control, generally under the supervision of a Service training command or similar organization. The trainees and students undergoing the training or education addressed in the report include the following categories of personnel:

1. Active Force: officers, enlisted personnel, and Service Academy cadets and midshipmen.

2. Reserve Components: officers and enlisted members on active duty for training in formal school courses.

Training of some civilian students, prior to their entry into the Services, in such programs as ROTC, is also discussed in the report. However, training loads are properly requested only for training and education of personnel received while they are in active military status.

In general, the training discussed in this report is conducted under Major Defense Program VIII, "Training, Medical and Other General Personnel Activities," as presented in the Defense budget. Exceptions to these general rules are pointed out, where appropriate, in the body of the report.

Personnel undergoing individual training and education are classified, for manpower accounting purposes, as either trainees, students, or cadets, unless they are undergoing training while on temporary duty or temporary additional duty from their unit of assignment, or unless they are being trained while en route to new stations as transients. The term "trainees" is generally used for all enlisted personnel in Recruit Training and Initial Skill Training. "Cadets" (or "midshipmen" in the case of the Naval Academy) are members being educated at one of the Service Academies. All others receiving individual training and education are identified as "students". The distinction is not important for the purposes of this report, and the term "student" will be used where appropriate to describe members of all three classifications as well as temporary duty and transient personnel being trained.

The term "training" generally refers to instruction in military subjects either at a basic level, as in Recruit Training, or in a military or job-related technical specialty, such as pilot training or training in radar repair. "Education" generally refers to study either in more advanced subjects or in military subjects which apply to an entire Service or to the broad mission of national security, as, for example, the curriculum at the National War College. The term "training" will be used in this report to refer to individual training and education as a whole.

FY 1983 Training Report and the FY 1983 Budget

It is important to emphasize that this report, while consistent with the Department of Defense Budget for FY 1983, differs in structure from the budget justification in two major respects. Budget justifications are focused on explaining how, by whom, and why money is to be spent; budgets for training and their justifications, therefore, are prepared by the Service which conducts the training programs and must obtain funds to train personnel from other Services in addition to its own. By contrast, this report details and emphasizes the training loads of the components of the parent Service whose members are undergoing the training, and deals in less detail with resources and funds required by the Service which conducts the training. For example, Navy personnel being trained by the Air Force are treated in this report as part of the Navy military student training load, since they are being trained to fill Navy requirements. However, in budget documents, funds to conduct training for these students, who are a part of the Air Force training workload, are included in Air Force appropriation requests.

Definitions of Major Training Categories

The portion of this report which discusses training loads in detail is organized into five chapters (Chapters III through VII), each of which addresses one of the major categories of training. These major categories are briefly defined below. Each chapter will more fully describe the training category and its sub-categories, the requested training loads, and the training methodology.

Recruit Training includes the basic introductory physical conditioning, military, and indoctrination training given to all new enlisted entrants in each of the Services. One-Station Unit Training (OSUT) is an Army training program which meets the training objectives of both Recruit and Specialized Skill Training in certain skills through a single course for new Service entrants which is conducted by a single training unit. Since it includes elements of two categories of training, it is treated separately in this report.

Officer Acquisition Training, sometimes called pre-commissioning training, includes all types of education and training leading to a commission in one of the Services, such as the programs of the Service Academies and officer candidate schools. Students not in active military status, such as Reserve Officer Training Corps students, are excluded from requested loads in this Report.

Specialized Skill Training provides officers and enlisted personnel with new or higher levels of skill in military specialties to match specific job requirements.

This category includes Army Advanced Individual Training and Navy Apprenticeship Training. Certain flight-related training, such as

training of air traffic controllers and some aircraft mechanics, and survival training in the Air Force, is reported under Specialized Skill Training. None of the officer acquisition programs are included in Specialized Skill Training.

Flight Training provides the individual flying skills needed by pilots, navigators, and naval flight officers to permit them to function effectively upon their assignment to operational mission units. The Service undergraduate flight training programs culminate in an officer, or an Army warrant officer, receiving "wings" and being categorized as a "designated" or "rated" officer.

The undergraduate programs do not include the major formal advanced flight training programs. Training conducted by Service advanced flight training organizations is not considered individual training and is therefore beyond the scope of this report.

Professional Development Education includes educational courses conducted at the higher-level Service schools or at civilian institutions to broaden the outlook and knowledge of senior military personnel or to impart knowledge in advanced academic disciplines to meet Service require- ments. Training of this type is required to prepare individuals for progressively more demanling assignments, particularly for higher command and staff positions. Programs include undergraduate and graduate educa- tion and other courses not leading to a degree.

Enlisted leadership training for senior non-commissioned officers is included in Professional Development Education rather than in Special- ized Skill Training to recognize its broad professional content. However, Navy leadership training, which is given to all grades of petty officers, is included in Specialized Skill Training, as is the rest of NCO training for more junior personnel conducted by the other Services.

Determining Training Requirements and Training Load

The amount and type of training to be conducted in the Department of Defense is the product of a series of calculations that is described in Appendix A to this report.

In brief, the process begins with the determination of the require- ment for military personnel with specific skills to fill positions in the approved or projected force. The requirement for trained manpower must then be measured against the available inventory of trained personnel projected at various points in the future. This comparison, made for each military skill and skill level, establishes the need for the training of personnel, on a phased basis, to fill current and projected skill shortages. The requirement for the training of personnel on a schedule calculated to maintain the skill inventory becomes the workload of the Service training establishments. It is measured in terms of the average military training student load, or "training load". The training load

for a given period is not only a measure of the amount of training to be accomplished; but, adjusted to take account of the Service conducting the training, it becomes a "workload" and thus it is also a basis for establishing the requirement for resources (manpower, funds, materiel and facilities) needed to support the training to l˙ conducted by a Service.

Conceptually, the training load for a given period is the average student strength for the period, and approximates man-years. The total training load is the sum of the loads for all the included individual courses. Training loads for individual courses are determined by the following factors:

1. The length of the training course.

2. The desired number of graduates, or output, of the course.

3. The number of entrants, or inputs, into the course required to obtain the desired output. This, in turn, depends on the pattern of attrition, or failures of entrants to graduate, for the course.

If attrition occurs at a constant rate during a course, the training load is computed by the following formula:

$$\frac{\text{Entrants} + \text{Graduates}}{2} \quad x \quad \begin{matrix}\text{Course Length (expressed}\\ \text{as a fraction of a year)}\end{matrix} \quad = \text{Load}$$

This is the basic method for computing the training loads discussed in this report. However, if attrition does not occur at a uniform rate, as is frequently the case, and the rate and phasing can be specified, more complex formulas and computer simulations are used to estimate training loads.

Accuracy in Projecting Training Loads

In accordance with law, training load authorizations must be requested well in advance of the period when the training is actually conducted. This year, for example, in addition to the more refined estimates of loads needed for FY 1983, load authorizations must be requested for the fiscal year which begins more than a year after the request is submitted -- that is, loads for FY 1984, beginning October 1, 1983, must be requested in the spring of 1982. This statutory requirement implies the capability to predict future training loads with precision. In actuality, while loads for some long-leadtime programs, such as the Service Academies, can be predicted with considerable accuracy, there are many uncertainties in projecting training loads. Some of the causes of uncertainty are:

1. Unpredictability of individual decisions to enlist or re-enlist; this factor may lead to unanticipated changes in the skill

inventory, requiring changes in the composition or size of training loads, or to shifts of portions of the training load from one fiscal period to the following period.

2. Unanticipated changes in force structure, requiring a readjustment of the skill inventory and the mix of courses in the training load.

3. Changes in attrition rates and patterns, causing unprogrammed fluctuations in training rates and loads.

Through forecasting training needs as far as possible into the future and continuous review and adjustment of training inputs and loads, the Services are able to adapt the training system to changing conditions. However, it should be clear that extended projections are subject to error; adjustments are inevitable and, in fact, necessary for good management.

Training Load Request by Component and Category

The tables on the following two pages display in category detail the requested training loads for FY 1983 and FY 1984. The loads for each period are displayed by component and by each of the major categories of training.

Military Training Student Loads, Fiscal Year 1983, By Component and Major Training Category

	Recruit Training	One-Station Unit Training	Officer Acquisition Training	Specialized Skill Training	Flight Training	Professional Development Education	Total
Active Forces							
Army	10,681	18,194	4,747	40,729	1,375	2,585	78,311
Navy	15,304	-	6,915	40,911	1,752	2,048	66,930
Marine Corps	9,526	-	340	9,224	680	665	20,435
Air Force	8,827	-	6,452	26,331	3,216	3,943	48,769
Sub-Total	44,338	18,194	18,454	117,195	7,023	9,241	214,445
Reserve Components							
Army National Guard	3,835	8,285	44	5,660	175	53	18,052
Army Reserve	4,529	2,783	7	7,086	97	77	14,579
Naval Reserve	310	-	34	644	-	12	1,000
Marine Corps Reserve	1,846	-	293	818	-	14	2,971
Air National Guard	804	-	-	1,209	272	43	2,328
Air Force Reserve	397	-	29	779	89	57	1,351
Sub-Total	11,721	11,068	407	16,196	633	256	40,281
Total	56,059	29,262	18,861	133,391	7,656	9,497	254,726

Military Training Student Loads, Fiscal Year 1984, By Component and Major Training Category

	Recruit Training	One-Station Unit Training	Officer Acquisition Training	Specialized Skill Training	Flight Training	Professional Development Education	Total
Active Forces							
Army	10,082	16,180	4,654	39,775	1,363	2,596	74,650
Navy	14,257	-	7,221	40,221	1,774	2,162	65,635
Marine Corps	9,500	-	250	9,190	674	665	20,279
Air Force	8,852	-	6,048	25,787	3,249	4,082	48,018
Sub-Total	42,691	16,180	18,173	114,973	7,060	9,505	208,582
Reserve Components							
Army National Guard	3,840	8,280	44	5,677	196	53	18,090
Army Reserve	3,975	2,509	7	6,642	83	76	13,292
Naval Reserve	310	-	34	642	-	12	998
Marine Corps Reserve	1,846	-	293	835	-	14	2,988
Air National Guard	804	-	-	1,208	272	43	2,327
Air Force Reserve	397	-	30	709	156	57	1,349
Sub-Total	11,172	10,789	408	15,713	707	255	39,044
Total	53,863	26,969	18,581	130,686	7,767	9,760	247,626

TRAINING PATTERNS

General Description

The development of servicemembers through formal training and
education and practical experience follows a generally common pattern.
The new servicemember (or, in the case of some Officer Acquisition
Training, the prospective servicemember) first receives training de-
signed to develop the basic attributes of all members of his or her
Service. In most cases, the graduate of the initial training is then
taught the skills required for a military job at the lowest skill level.
Those servicemembers who do not remain beyond their initial enlistments
or obligated terms of service do not, in most cases, receive additional
formal training. Those who remain, the career members, will further
develop their military knowledge and skills through experience in mili-
tary jobs, interspersed, as required, with training or education needed
to prepare them for more responsible positions. During any part of
their terms of service, military personnel are also encouraged, as their
military assignments may permit, to improve their educational attain-
ments to the benefit of themselves and their Services through off-duty
and voluntary education programs that may be available. This combina-
tion of job experience, training and education is essential to the
development of a military force that is capable of carrying out the
national security mission.

Enlisted personnel usually work in relatively specialized skill
fields, whereas the duties of officers, particularly of tho e in the
career force, call for broader expertise. For these reasons, the training
and education patterns of officers and enlisted personnel differ, and
will be discussed separately in the following sections of this chapter.

Officer Training Patterns

Each Service has developed career patterns to prepare its officers
to assume progressively higher command and staff responsibilities.
These career patterns are composed of operational assignments, during
which the officer learns his profession through experience, and periodic
individual training and education, which provide the officer with knowledge
and skills needed for progressively more demanding subsequent assignments.

Officer training and education can be divided generally into three
types. First, each Service maintains a system of professional military
education that is progressive in nature. This education is related
more to the increasing responsibilities associated with career pro-
gression to more senior grades than to the individual's current assignment
or specialty. It is primarily the study of officership and the command
and staff knowledge required of all professionals. The second type of

education and training includes the many specific skill-producing courses that are conducted to enable the officer to perform immediately upon assignment to a specialized or functional area. These courses vary in length from a few days to several months. They present, for the most part, strictly job-oriented training, and are often in the nature of orientation or refresher courses. Third, the Services also provide selected officers with advanced academic education, either in-house or at civilian institutions, to meet specific requirements for officers educated in technical, scientific, engineering, and managerial fields. Officers also participate in a variety of other educational programs, many on a part-time basis, usually with the student sharing in the cost.

Training and education for career officers, involving one or more of the types of training and education described above, follow the general patterns outlined in the following paragraphs. The patterns vary among the Services to some extent, and not all officers will participate in all of the schooling described. The number of officers participating in schooling becomes progressively smaller, and participation more selective and demanding, as officers move through their careers.

Non-career officers (those who may be expected to serve only an initial tour of active duty) generally receive training only at the entry level. In some cases, they may receive skill-oriented courses such as pilot training, which is lengthy and results in a commensurately longer active duty obligation, or training as maintenance or communications officers.

Entry Level Training. Upon entry, the young officer's initial training is Service-oriented and intended to prepare him or her for duties at the lowest operational level -- company, squadron, or ship. The newly commissioned Army officer will attend a basic course conducted by the particular branch of the Army to which he is assigned, such as infantry, armor or artillery. A Navy ensign is usually assigned to school training based on his warfare specialty. The new Marine officer attends the Officer Basic School. A newly commissioned officer in the Air Force may go to Flight Training or training in a technical specialty.

Developmental Training. After some operational experience, the career officer requires further schooling to prepare him for service at the next level -- for example, as a unit commander or a headquarters staff officer. In the Army, this entails a return to his branch school for more advanced training. An Air Force officer could be selected for the Squadron Officer School. A Marine Corps officer would normally attend the Amphibious Warfare Course. Navy officers at this stage in their careers may attend a school in a specialty appropriate to their future assignments.

To satisfy Service requirements and as a further step in professional development, some officers are selected for participation in an advanced academic educational program at a civilian institution or one of the two Service technical institutes, the Naval Postgraduate School and the Air Force Institute of Technology.

Intermediate Service Schools. As the officer progresses (between six and 16 years of service, depending on Service criteria) he is ready for the next, or command and staff, level of professional schooling in preparation for assuming higher responsibilities. Attendance is competitive, as not all officers are selected to attend. Each Service has such a course; the Armed Forces Staff College, a joint school, is also conducted at this level. Each Service has its own emphasis with regard to this schooling because of its pattern of missions; these differences are reflected in the school curricula.

Senior Service Schools. Subsequent to the intermediate years, little technical training is provided. The final level of professional military education is that of the Senior Service Schools -- the war colleges --for which attendance is highly selective. The Army, Navy, and Air Force each has a war college. In addition, there is the National Defense University, consisting of the National War College and the Industrial College of the Armed Forces. Officers graduating from the Senior Service Schools have the academic foundation required for command and staff positions at the highest level. The different curricula of these schools reflect the differing patterns of missions among the Services.

Enlisted Training Patterns

An individual entering upon an initial enlistment is provided Recruit Training that introduces him or her to military life. Following this indoctrination training, an individual will follow one of three possible avenues:

1.   Initial Skill Training, which prepares the enlistee for an initial duty assignment, or

2.   Direct duty assignment on the basis of a skill already acquired in civilian life, or

3.   Direct assignment to first duty unit for on-the-job training (OJT).

The Army One-Station Unit Training (OSUT) program is a variation of the first of these three avenues, since it combines Recruit and Initial Skill Training into a single course, followed by assignment to an operational unit. About 50 percent of Active Army entrants to initial enlisted training will be trained under the OSUT in FY 1983. For the Reserve Components, 47% of the Army entrants will receive OSUT.

The expected distribution of Active Recruit Training graduates in FY 1983 is as follows:

Disposition of Active Recruit Training Graduates in FY 1983

	Army	Navy a/	Marine Corps	Air Force
To Initial Skill Training	93%	96%	81%	95%
To Duty Assignment (Civilian-Acquired Skill)	1%	*	*	1%
To Duty Assignment (On-the-Job Training)	6%	4%	19%	4%
	100%	100%	100%	100%

*Less than 1/2 percent.

a/   31% of Navy Recruit Training graduates attend short
     "Apprenticeship Training" courses (carried under Initial
     Skill Training in this report) as a preliminary to
     further training on the job.

As the table indicates, most enlisted personnel receive formal Initial Skill Training to provide them with a basic military skill. The combination of Recruit Training and Initial Skill Training (or Army One-Station Unit Training) is the foundation of the development of enlisted personnel, because it turns civilians into servicemembers who are qualified to fill positions in military units.

Other than for on-the-job training in the work environment, enlisted personnel normally receive no further formal training beyond the training previously described during their initial enlistments. The major exception is Navy training, conducted by fleet training centers, in such shipboard duties as firefighting.

Subsequent to reenlistment, an individual may be selected for attendance at a journeyman level course in his specific occupational area. This training emphasizes the appropriate military applications for the skills being taught. In most cases, however, enlisted personnel advance in their skill areas through experience gained on the job and without extensive additional formal training. Some enlisted personnel are given the opportunity to attend NCO professional development training programs which prepare them for increased supervisory and leadership responsibilities.

Normally, few enlisted personnel attend regularly programmed specialized courses after mid-career. There are instances, of course, where new equipment or systems are introduced into a Service, and senior level enlisted personnel are formally trained in operation and maintenance techniques. Selected senior enlisted personnel attend schools, such as the Army's Sergeants Major Academy, which are, on the NCO level, similar in purpose to the Intermediate and Senior Service Schools in the officer education system.

RECRUIT TRAINING AND
ARMY ONE-STATION UNIT TRAINING

General Description

Recruit Training is the basic introductory and indoctrination training given to enlisted personnel of each Service upon their initial entry into military service. Recruit Training provides an orderly transition from civilian to military life, motivation to become a dedicated and productive member of the service, and instruction in the basic skills that are required by all members of the Military Service involved. Training in each of the Services emphasizes discipline, observance of military rules, social conduct, physical conditioning and the building of self-confidence and pride in being a member of the service. Beyond these common objectives, Recruit Training in each Service is designed to meet the particular training requirements of that Service which are a reflection of the Service mission. The graduate of Recruit Training has the basic knowledge and skills required to qualify him or her, after formal or on-the-job training in a particular skill, for service in an operational unit of the parent Service.

Army One-Station Unit Training (OSUT) is unique in that it combines Recruit Training and Initial Skill Training in certain skills into a single, continuous course conducted by a single training unit. OSUT therefore includes elements of two major training categories; consequently, it is treated separately at the end of this chapter. OSUT training loads are not included within the Recruit Training loads displayed in this chapter.

Recruit Training Loads

The training loads for FY 1974 through FY 1983 for each component of each Military Service are in the table on the following page.

RECRUIT TRAINING LOADS, FY 1974-83[a]

Service Component[b]	FY 74	FY 75	FY 76	FY 77	FY 78	FY 79	FY 80	FY 81	FY 82	FY 83
Army[b]										
Active	26,088	25,902	23,611	20,823	12,957	9,141	10,453	9,831	10,069	10,681
Natl Guard	3,272	3,283	3,864	4,140	3,884	2,707	2,661	2,835	3,592	3,835
Reserve	751	1,847	1,548	1,529	1,620	2,062	2,339	2,959	4,380	4,529
Navy										
Active	16,252	18,569	17,642	17,407	14,199	12,440	13,597	14,288	13,467	15,304
Reserve	386	562	281	338	361	294	290	339	307	310
Marine Corps										
Active	12,409	14,112	12,350	11,288	9,652	9,859	10,166	9,691	9,237	9,526
Reserve	905	1,717	1,694	1,801	1,935	1,446	1,623	2,013	1,796	1,846
Air Force										
Active	9,797	9,720	9,348	8,666	8,151	7,712	8,872	9,423	8,542	8,827
Natl Guard	228	390	475	404	459	426	677	740	749	804
Reserve	162	298	280	291	301	249	297	368	397	397
DoD										
Active	64,546	68,303	62,951	58,184	44,959	39,152	43,088	43,233	41,315	44,338
Gd/Res Tot	5,704	8,097	8,142	8,503	8,560	7,184	7,887	9,254	11,221	11,721
DoD Total	70,250	76,400	71,093	66,687	53,519	46,336	50,975	52,487	52,536	56,059

[a] In this table and in all subsequent tables in this report, training loads for the years prior to and including FY 1981 data are actual, FY 1982 and subsequent year data are estimated.

[b] Data do not include Army One-Station Unit Training loads.

The changes in Recruit Training loads from FY 1981 to FY 1983 are the result of changes in the number of non-prior service accessions. For the Army and the Marine Corps, the planned expansion of the reserve force causes accession-related increases in the Recruit Training loads. The increases in Navy and Air Force loads reflect the higher levels of non-prior service accessions in the active force.

Recruit Training

The following table displays for Recruit Training the average training loads for each year from FY 1981 to 1983 and, for FY 1983, the number of entrants (input) and number of graduates (output). Data are shown separately for each component of each Service.

Training Inputs, Outputs, Loads, Recruit Training
FY 1981 - 1983

Service Component	FY 81 Load	FY 82 Load	FY 83 Input	FY 83 Output	FY 83 Load
Army					
Active	9,831	10,069	69,341	64,177	10,681
Reserve	2,959	4,380	30,119	28,321	4,529
Natl Guard	2,835	3,592	24,740	23,188	3,835
Navy					
Active	14,288	13,467	106,000	97,015	15,304
Reserve	339	307	2,008	1,826	310
Marine Corps					
Active	9,691	9,237	41,484	36,402	9,526
Reserve	2,013	1,796	7,952	6,998	1,846
Air Force					
Active	9,423	8,542	71,300	66,665	8,827
Reserve	368	397	3,204	2,996	397
Natl Guard	740	749	6,500	6,027	804
DoD					
Active	43,233	41,315	288,125	264,259	44,338
Res/Gd Tot	9,254	11,221	74,523	69,356	11,721
DoD Total	52,487	52,536	362,648	333,615	56,059

Each of the Services conducts training for women recruits that is similar in concept to Recruit Training for males. The Army and Air Force have adopted integrated male and female Recruit Training. The training syllabi are essentially the same for males and females. In the Navy and Marine Corps, male and female Recruit Training is collocated but not integrated. The major difference between these male and female courses is that women recruits general'v receive less training in weapons use and other combat oriented skills. The de-emphasis on combat skills in the Marine Corps causes the length of training for women to be somewhat shorter.

Rationale for Recruit Training

The underlying philosophy of Recruit Training in each of the Services is that the demands of military service are fundamentally different from those of civilian life. Military service requires a high level of discipline and physical fitness, a homogeneity of outlook, and an ability to live and work as part of a highly structured organization. There are few parallels in civilian society to the demands of military service. Each recruit, therefore, must be transformed into a member of the military team in order to function effectively in the military environment. The attitudes, habits, and basic skills formed in Recruit Training are the foundation of a cohesive military organization. Later training provides the skills and knowledge needed for specific jobs; Recruit Training shapes the civilian entrant into a dedicated member of his or her Military Service with the potential for further development.

The major determinants of Recruit Training loads are the total number of people entering service who must receive Recruit Training (input), the length of the training course, and projected patterns of attrition. Course length and attrition are discussed later in this chapter. The following two sections discuss inputs: first, inputs of active duty personnel, and second, inputs of members of the Reserve Components on active duty for initial training.

Active Duty Input

The annual recruiting objective for active duty enlistees without prior military service is a function of the following factors:

1. The projected requirement for trained enlisted personnel.
2. Current enlisted trained strengths.
3. Number of enlisted personnel currently in training.
4. Projected enlisted losses through separations or other reasons (e.g., desertion, death, acceptance of a commission, etc.).
5. Projected prior-service enlistments -- that is, the return from civilian life of former service-members.

"Trained strength" is the number of personnel required to fill "structure" spaces (i.e., positions in military organizations that require specific grades and skills) and individual "pipeline" spaces, such as transients en route between assignments. The Defense Manpower Requirements Report contains a full discussion of how military manpower requirements are determined. The projected trained strength requirement is compared with the projected trained strength inventory to forecast future skill and strength imbalances. Future shortages that are not expected to be satisfied either by prior-service enlistees or service-members currently in skill training courses determine the training output needed to man the force with trained personnel. To determine the necessary input to achieve this output, allowance must be made for course attrition, the number of students entering a course of instruction who fail to complete it. The total input requirement must, therefore, be increased to compensate for expected attrition losses.

The optimal leveling of monthly inputs to obtain the most efficient use of training staff personnel and training facilities is a continuing goal. However, the phasing of inputs must at times be varied in order to take advantage of the best recruiting periods for maintaining quality and quantity.

Historically, June through September and January have been the most productive recruiting months, reflecting behavioral patterns that are related to the civilian academic calendar. Enlistments increase (1) shortly after high school graduation, (2) when peers return to school in the fall, and (3) after the results of the first term academic work are announced.

The Services must accept most prospective enlistees at the time they are ready to enter service. Requiring enlistees to enter military service in phase with requirements and on an even-flow basis would result in the loss of many potential enlistees to other sources of employment. Accepting enlistees as they become available, however, requires a training structure capable of accommodating peak surges of enlistments.

Reserve Component Input

Persons enlisting in the National Guard and Reserve forces without active duty experience require the same Recruit Training as active duty enlistees, and for the same reasons. Recruit Training loads for the Reserve Components are based on the same factors as active force loads. Guard and Reserve trainees, while in Recruit Training, are mingled with active duty trainees in units so that their training is identical.

Reserve Component recruits form a significant part of the workload of the active Recruit Training establishment. In FY 1983, 15 percent of DoD Recruit Training loads, and 44 percent of Army's, are attributable to Guard and Reserve trainees.

The planning considerations for Reserve Component personnel are essentially similar to those for the active force; detailed phasing of this training is complicated, however, by the additional consideration of civilian employment or school commitments for these personnel. For this reason, a pool of personnel who have been enlisted but who have not yet been able to attend entry training is normal. It is important that this backlog is kept within a reasonable size.

Course Length and Course Content

Enlisted training loads depend not only upon the numbers of entrants but also on the extent of skills required of entering enlisted personnel by each Service. Enlisted personnel attain those skills in Recruit Training and in Specialized Skill Training. Specialized Skill Training is discussed in a subsequent chapter. Recruit Training course lengths are determined in part by how much of the required training is to be provided during the Recruit Training phase and how much is to be deferred to later training. The four Services, because of differences in their missions, take somewhat different approaches in establishing the content and length of their Recruit Training courses.

Recruit Training in each of the Services covers four areas: (1) some processing and testing; (2) introducti n into Service life; (3) instruction in military courtesy, discipline, and hygiene; and (4) fundamental military-related training involving physical fitness, military drill, and self-defense. In addition, each Service provides training in military skills that should be possessed by all, or almost all, members of that Service. The degree to which these Service-wide required skills exist differs widely among the Services. This factor accounts for most of the differences in course content and, therefore, course length. The variance in quality of enlistees among the Services also has a bearing on course length; recruits with lower intelligence and lesser amenability to discipline require a longer training period to achieve training objectives.

The length of the standard Recruit Training course in each Service is shown in the following table:

Recruit Training Course Length FY 1983 (Weeks)

Army	Navy	Marine Corps	Air Force
8.0	7.7	10.3	6.0

The Army is taking action to strengthen training for new recruits. Beginning in 1981, both Recruit Training and One-Station Unit Training (OSUT) were extended one additional week, and each training day was extended an hour, to achieve the equivalent of 97 additional hours of instruction. The Army has begun phasing in the increase by adding one hour of instruction to each class day and plans to fully implement the additional week of training in FY 1982. The additional instruction allows for more repetitive instruction on current skill tasks, increased weapons training, and more comprehensive end-of-course examinations to evaluate preparedness and personal accomplishment. Better trained, more highly motivated and better disciplined soldiers are expected to result from the expanded training for Army recruits.

Army and Marine Corps Recruit Training differ from the Air Force and Navy programs because all recruits are given intensive physical conditioning and instruction in basic ground combat skills, including the use of individual weapons. These Services subscribe to the view that all male enlisted personnel must achieve a basic level of qualification in ground combat skills, and their Recruit Training curricula both provide a common core of training in these skills.

The Air Force accomplishes all Recruit Training in six weeks. Course content concentrates on indoctrination subjects. Relatively little training in Service-wide skills is provided, since there are few common skills needed by all Air Force enlisted personnel. In addition to subjects oriented toward indoctrinating recruits to military life, the Navy course includes phases designed to prepare them for conditions in a fleet environment. The Navy must be sure that recruits learn to live, work, and fight in restricted space such as they will find on board ship, often close to complex machinery and weapons.

The average length of time spent in recruit status in any of the Services may be longer than the standard course lengths discussed above. Some recruits fall behind their peers because of illness. Others require remedial training. If this cannot be accomplished by additional instructional hours the recruit may be sent to a special training unit or recycled to a following class to repeat a portion of the course.

The common objective of transforming a civilian into a disciplined servicemember tends to set a floor under the length of Recruit Training in each of the Services. Relatively few recruits have had much experience with life in a disciplined environment, been separated from their families and friends, or subjected to the stresses imposed by military life. Compensating for these factors takes not only training but also time. A minimum of six weeks in Recruit Training appears necessary to accomplish this objective alone in any of the Services. Greater amounts of time are required for those Services that must provide extensive training in required common skills.

Attrition in Recruit Training

A final factor in the computation of loads is the projection of the rate and timing of attrition. Recruits may fail to complete training for medical reasons, inability to absorb the instruction, lack of motivation, disciplinary problems, or a variety of administrative causes, such as discharge for fraudulent enlistment or family hardship. The following table shows projected attrition losses for FY 1983. The projected reduction in attrition is largely attributable to the improved quality of recruits in all Services. The Army and Navy are attracting a significantly greater number of high school diploma graduates, who are able to perform better in Recruit Training than non-high school graduates.

Recruit Training Attrition Projections, FY 1982 and 1983
(Active and Reserve Combined)
(Percent)

	Army	Navy	Marine Corps	Air Force
FY 82	7.9%	9.9%	12.0%	6.5%
FY 83	6.9%	8.8%	12.0%	6.5%

The timing of attrition varies from case to case. In the case of slow learners or individuals who have difficulty in adjusting to military life, trainees usually are reentered or given special instruction; those who do not respond adequately may not become attrition losses until late in the course.

Army One-Station Unit Training

The Army's One-Station Unit Training (OSUT) program combines Recruit Training and Initial Skill Training for certain skills into a single continuous course. Consequently, this report treats OSUT separately rather than arbitrarily breaking it into two segments.

OSUT loads for FY 1976, when OSUT was introduced, through 1983 are shown in the following table.

OSUT Training Loads, FY 1976-83

Service Component	FY 76	FY 77	FY 78	FY 79	FY 80	FY 81	FY 82	FY 83
Army								
Active	1,483	6,660	9,252	16,944	20,651	14,043	14,515	18,194
Reserve	43	212	546	1,861	1,831	2,248	2,954	2,783
Natl Guard	426	1,553	2,559	4,973	6,229	6,457	6,966	8,285
Res/Gd Tot	469	1,765	3,105	6,834	8,060	8,705	9,920	11,068
DoD Total	1,952	8,425	12,357	23,778	28,711	22,748	24,435	29,262

The following table displays OSUT inputs and outputs, as well as loads, for FY 1983.

Training Inputs, Outputs and Loads, OSUT, FY 1983

Service Component	Inputs	Outputs	Loads
Army			
Active	69,931	63,129	18,194
Reserve	12,799	11,868	2,783
Natl Guard	36,320	33,027	8,285
Res/Gd Total	49,119	44,895	11,068
DoD Total	119,050	108,024	29,262

In FY 1976, less than five percent of Army non-prior service entrants were trained under OSUT. In FY 1983, about 50 percent of active Army entrants to recruit training will be trained by this method. OSUT courses are also being extended by an average of about one week in FY 1982 and FY 1983. OSUT will still require less training time than the separate Recruit Training and Initial Skill Training courses that it replaced.

The following table shows training time for current OSUT courses and compares it to the extended training planned for FY 1983:

OSUT Training Time, FY 1981-FY 1983

Skill Area	Training Time (Weeks)		
	FY 81	FY 82	FY 83
Infantry	12	12.5	12.5
Artillery	12	13	13
Armor	12	14	14
Engineer	12	13	13
Military Police	14	15.5	15.5

Extended training of an additional week for all OSUT courses has resulted in increased training in FY 1982 and FY 1983, as shown in the above table. Individual courses have been lengthened any where from one-half week to two-weeks, but overall the average OSUT course length has increased about a week.

The time that would be required to complete Recruit Training and the Initial Skill Training in separate courses for these skills is now 17 weeks, including the time required to move the trainee from one training organization to another. The shorter OSUT course lengths averaging about 13 weeks provide a significant savings in trainee manyears and, consequently, in trainee pay, allowances and support costs. Moreover the Army's extensive tests of OSUT indicate that the quality of OSUT graduates is generally as good as the quality of personnel trained under the longer two-course training system.

OFFICER ACQUISITION TRAINING

General Description

Officer Acquisition Training consists of training and education programs leading to a commission in one of the Military Services. These programs fulfill the need both for junior officer entrants into the career force and for non-career junior officers in the force structure. Officer Acquisition Training programs produce officers for both the active forces and the Reserve Components.

Training loads for Officer Acquisition Training are shown in the table on the following page.

Total Officer Acquisition Training Loads, FY 1974-83

Service / Component	FY 74	FY 75	FY 76	FY 77	FY 78	FY 79	FY 80	FY 81	FY 82	FY 83
Army										
Active	5,356	5,235	5,219	4,720	4,777	4,776	4,741	4,636	4,583	4,747
Nat'l. Guard	-	2	15	34	46	47	42	44	50	44
Reserve	130	149	135	128	1	3	5	4	4	7
Navy										
Active	6,910	6,791	6,468	6,072	5,769	5,873	5,661	6,389	6,628	6,915
Reserve	108	126	100	35	30	35	29	12	34	34
Marine Corps										
Active	414	486	434	359	388	269	249	268	274	340
Reserve	285	319	293	301	313	309	224	264	283	293
Air Force										
Active	5,784	5,797	5,255	5,008	5,320	5,816	6,032	5,776	5,881	6,452
Nat'l. Guard	-	-	-	-	-	-	-	-	-	-
Reserve	20	4	2	1	2	8	10	13	11	29
DoD										
Active	18,464	18,309	17,376	16,159	16,254	16,734	16,683	17,069	17,366	18,454
Gd/Res Total	543	600	545	499	392	402	310	337	382	407
DoD Total	19,007	18,909	17,921	16,658	16,646	17,136	16,993	17,406	17,718	18,861

Excluded ROTC and Health Professions Acquisition Programs

The total loads above do not include two types of Officer Acquisition Training: the Army, Navy, and Air Force Reserve Officers Training Corps (ROTC) programs and the Armed Forces Health Professions Scholarship program. ROTC and Health Professions Scholarship students are not in active military status, whereas students who make up the training loads discussed in this report are either members of the active forces or members of the Reserve Components being trained on active duty by the active establishments. Although these two programs are not included in the requested training loads, they are discussed in this chapter to provide a complete account of Officer Acquisition Training. The following tables show the number of participants in these programs in the period FY 1981 through 1983.

Average Enrollees, ROTC Programs, FY 1981-83

Service	FY 1981	FY 1982	FY 1983
Army	69,436	71,341	80,158
Navy	8,145	8,400	8,560
Air Force	21,694	22,601	23,610
DoD Total	99,275	102,342	112,328

Health Professions Scholarships, FY 1981-83

	FY 1981	FY 1982	FY 1983
Army	1,738	1,736	1,735
Navy	1,575	1,575	1,420
Air Force	1,475	1,575	1,575
DoD Total	4,788	4,886	4,730

The figures shown above for Health Professions Scholarships are actuals for FY 1981; the FY 1982 and 1983 figures are those currently authorized by DoD to each Service from the total of 5,000 authorized scholarships.

Junior ROTC is a program designed to develop leadership qualities, good citizenship, and an understanding of the basic elements of national security among high school students. Despite its name, it is not an officer acquisition program, since it does not result in a commission and its participants have no military obligation whatsoever. Junior ROTC is not included within training loads covered by this report.

Officer Requirements and Structuring the Officer Acquisition
Program

Requirements for new officers, like requirements for new enlisted personnel, are a product of the need for officers in the projected force

as compared to the projected future inventory of officers. Properly functioning programs fill the gross requirements for officer entrants for any given year, and provide an even flow of sufficient new officers to each Service to avoid the emergence of unmanageable shortages and overages by age and grade in the future. Each of the Services uses a mix of sources for new officers.

The mix of officer acquisition programs used must recognize the characteristics of each source. Some of the differing characteristics of current programs are stable input, long lead-time; flexible inputs, short lead-time; high academic quality with comprehensive military indoctrination; and high level of technical skill. Additionally, consideration must be given to each program's ability to attract applicants, the quality of the graduates, and their probable retention and attrition. These differences and others must be recognized and exploited in planning officer procurement.

The Service Academies present a long lead-time program that produces a significant proportion of highly trained career military officers.

ROTC is also a long lead-time program and provides the largest single input of officers to the active duty force, although many of these officers will leave active duty and join the reserve components. In this manner, ROTC provides officers to support the total force, both active and reserve.

Officer Candidate Schools provide the short lead-time commissioning source necessary to respond to immediate surges in officer requirements, since the program can be expanded or reduced in a relatively short period of time.

The off-campus commissioning programs, such as the Navy's Aviation Reserve Officer Candidate (AVROC) program, are long lead-time programs, and provide the student at virtually any four-year college or university the opportunity to earn a commission through summer training but without military responsibilities during the school year. Finally, Other Enlisted Commissioning Programs are long lead-time in nature, and provide a source of officers who possess specific technical skills and who have a proven high rate of retention.

In addition to these reasons for using a variety of sources to satisfy officer requirements, it is also desirable to use different sources to keep the officer corps from being restricted to a narrow segment of the national population and to provide opportunities for highly qualified enlisted personnel.

Officer Acquisition Training may be divided into six separate programs:

Service Academies
ROTC
Officer Candidate Schools
Off-Campus Commissioning Programs
Enlisted Commissioning Programs
Health Professions Acquisition Programs

Service Academies

The mission of each of the Service Academies (United States Military Academy, United States Naval Academy and United States Air Force Academy) is to meet a portion of the long-range requirement for career military officers. They provide instruction and experience to each cadet or midshipman so that he or she graduates with the knowledge and character essential to leadership and with the motivation to become a career officer. Cadets and midshipmen participate in a four-year program of academic studies and training in leadership and other military subjects. Successful completion of the specified academic and military requirements entitles the graduate to a Bachelor of Science degree and a Regular commission in one of the Military Services. Up to one-sixth of Naval Academy graduates in each year may be commissioned in the Marine Corps.

The Service Academies are distinctive among the collegiate institutions of the nation in that their curricula are specifically designed to prepare young men and women for service as professional officers. The total curriculum at each Academy is designed to develop the qualities of character, intellect, and physical competence needed by the officer who may, in the course of a full career, be called upon to perform duties ranging from leading a small combat unit to advising the highest government councils. The programs include the sciences, the humanities, and military and physical training, and form the basis for further professional development or, when required, graduate education.

The enrollment of each of the Service Academies is established by law. This fact establishes stable training loads for the Academies. Training load data for the Service Academies are shown in the following table:

Training Inputs, Outputs, Loads, Service Academies

Service Component	FY 81 Load	FY 82 Load	FY 83 Input	FY 83 Output	FY 83 Load
Army	4,083	4,052	1,402	927	4,052
Navy	4,377	4,380	1,667	1,282	4,377
Air Force	4,210↑²³⁷	4,235	1,479	905	4,235
DoD Total	12,670	12,667	4,548	3,114	12,664

Each of the Military Departments sponsors an Academy preparatory school. Marine Corps personnel attend the Navy school. The missions of these schools are to provide intensive instruction and guidance, in courses of instruction approximating one academic year, to selected enlisted personnel in preparation for entry to the Service Academies. Students compete for appointments by the Secretaries of the Military Departments and from other sources. The Naval Academy Preparatory School also provides instruction to candidates for the Marine Corps Enlisted Commissioning Education Program during the summer months.

Training Inputs, Outputs, Loads,
Academy Preparatory Schools, FY 1981-83

Service	FY 81 Load	FY 82 Load	FY 83		
			Input	Output	Load
Army	299	277	330	223	277
Navy	210	230	300	220	230
USMC	6	13	20	12	13
Air Force	197	190	260	165	190
DoD Total	712	710	910	600	710

ROTC Programs

ROTC is a long lead-time program which is the single largest source of officers for the Armed Forces. Like the Service Academies, ROTC is used to provide a relatively constant input of officers for active duty, but ROTC also provides non-career officers as well as career officers. The program is currently conducted at over three hundred civilian colleges and universities throughout the nation. The Army, Navy, and Air Force each sponsor an ROTC program; up to one-sixth of the Navy graduates may be commissioned in the Marine Corps. Scholarships and subsistence allowances authorized by law, in addition to conventional recruiting and advertising methods, are used to attract qualified students. Scholarships are awarded to young men and women who exhibit potential ability and interest in fields of projected Service needs.

There are both scholarship and non-scholarship, as well as two-year and four-year, ROTC programs. The curriculum of each program is tailored to the needs of the individual Services. For example, the Navy teaches the basics of ship navigation, while the Army teaches the fundamentals of ground combat and the Air Force provides some basic instruction in aerospace history and doctrine. Each of the programs includes instruction in leadership, military customs and military history, and each program provides prospective officers with a gradual transition from the

civilian environment to the military environment. Each ROTC program consists of a series of regularly scheduled academic classes throughout the school year combined with mandatory summer camps or cruises which are designed to give the student realistic military experience and a first-hand view of military life.

The ROTC scholarship continues to be an important incentive to attract exceptionally qualified individuals to ROTC. The rising cost of education makes the scholarship even more attractive. The Congress increased the number of ROTC scholarships from 19,000 in FY 1979 to 29,500 authorized scholarships in FY 1982. The Army offered 6,000 scholarships in 1979; last year the 96th Congress authorized 5,500 additional Army ROTC scholarships in FY 1981 for a total of 12,000. Of the 12,000 authorized scholarships, 8,500 will be awarded in FY 1982 and the balance will be awarded in FY 1983. In FY 1981, The Congress authorized the Navy 2,000 additional scholarships for a total of 8,000. The Air Force was authorized 3,000 additional scholarships for a total of 9,500. Both the Navy and the Air Force plan to phase in the awards at the rate of 500 additional awards a year until the authorized level is reached in FY 1987.

The ROTC program is being expanded through the establishment of more host institutions and new extension centers. Students at an extension center participate in the ROTC unit of a larger host institution. This practice extends the ROTC option to students attending the numerous small colleges and universities not large enough in themselves to support a viable ROTC unit. In FY 1980 the Army expanded its program by establishing 41 new extension centers. An additional 48 Army ROTC extension centers and eight new host institutions were established in FY 1981. By the end of FY 1983 sixteen of the most productive extension centers will have been elevated to host institution status for a total of 315 Army ROTC hosts, up from 303 host institution in FY 1981. The Navy plans three additional host institutions for a total of 58, and the Air Force plans ten additional units for a total of 153 AFROTC host institutions in FY 1983.

The FY 1979 Defense Appropriations Act tasked the Department of Defense to review the criteria for evaluating the performance of Reserve Officers Training Corps (ROTC) units and for phasing out units that have failed to provide an adequate return for the resources invested. In FY 1980, the Congress directed scholarship recipients complete this education and serve on action duty or repay the cost of their education. A revised Department of Defense directive giving uniform guidance on the viability of ROTC units and on the payback provision became effective in February 1982.

As noted at the beginning of this chapter, the ROTC program is not included in Service training loads because the students are not in an active military status. The following table shows the three Service ROTC programs for FY 1983.

ROTC Programs in FY 1983

Service	Beginning Enrollments	Graduates	Average Enrollments	Average Number of Scholarship Enrollees
Army	81,372	7,821	80,158	10,180 [1]
Navy	8,320	1,400	8,560	5,940
Air Force	24,602	3,779	23,610	7,000
DoD Total	114,294	13,000	112,3289	23,120

[1] The Army will award 8500 acholarships in FY 1982 and 12,000 in FY 1983. For budget purposes, this equates to an academic year 1983-1984 average of 10,180 awards in force.

Off-Campus Commissioning Programs

Officer Acquisition Training programs in which college students participate but which are conducted off the college campus are the Navy's Aviation Reserve Officer Candidate (AVROC) program and the Marine Corps Platoon Leaders Class (PLC). These programs provide for enlistment as a Naval or Marine Corps Reservist while the student is still an undergraduate and require participation in summer military training.

Students participating in these programs attend either one or two summer training sessions, depending upon when, during their college career, they were enrolled. The objectives of the programs are to indoctrinate, motivate, and train the enrollees by providing instruction in basic military subjects, leadership, and physical training. In addition, students enrolled in the Aviation Reserve Officer Candidate program receive limited flight orientation training and attend Navy Officer Candidate courses prior to receiving their commissions. PLC students are commissioned when their college degrees are conferred; the newly commissioned officers then attend the Marine Corps Officer Basic Course.

In conformance with the nature of these programs, the training loads in the following table are based only on the time spent in summer training. Loads, consequently, are low as compared to inputs and outputs.

Training Inputs, Outputs, Loads,
Off-Campus Commissioning Programs
FY 1981-83

Service Component	FY 81 Load	FY 82 Load	FY 83 Input	FY 83 Output	FY 83 Load
Naval Reserve					
AVROC	12	34	250	214	34
USMC Reserve					
PLC	264	283	2,760	1,886	293
DoD Total	276	317	3,010	2,100	327

Officer Candidate Schools (OCS)

Each of the Military Services operates an Officer Candidate School. The Air Force school is entitled Officer Training School (OTS).

Enlisted members can use this route to "rise from the ranks". The existence of OCS programs, and the other enlisted commissioning programs covered in the next section, is therefore a significant advancement incentive to ambitious and promising enlisted personnel.

The four Services offer direct entry into OCS to selected college graduates without previous enlisted service. Some college students in highly specialized academic disciplines, such as engineering and physical sciences, feel that they cannot afford the time required to participate in ROTC; OCS allows a way to a commission for these persons and, as well, for other well-qualified persons who choose to become officers after graduation from college.

In a recent initiative the Navy has expanded a specialized OCS program, the Nuclear Propulsion Officer Candidate Program. To meet an immediate requirement for additional nuclear propulsion accessions, the Navy will offer scholarships to qualified junior and senior college students. Upon graduation these scholarship students will complete officer training at OCS and serve a four-year obligation in the Nuclear Navy.

The following table shows the lengths of the various courses.

Course Lengths, Officer Candidate Schools

Service 　Course	Course Length (Weeks)
Army	
OCS:　Active	14
Reserve	9
Navy	
OCS	16
Aviation OCS	13
Marine Corps	
OCS	10
Air Force	
OTS	12

Load data for OCS programs are shown in the following table.

Training Inputs, Outputs, Loads, Officer Candidate Schools
FY 1981-83

Service 　Component	FY 81 Load	FY 82 Load	FY 83 Input	FY 83 Output	FY 83 Load
Army					
Active	254	254	1000	811	254
Reserve	4	4	45	38	7
Guard	44	50	260	219	44
Navy					
Active	982	1059	2,100	1,785	1,074
USMC					
Active	109	132	1,269	823	198
Air Force					
Active	763	706	4,685	3,789	1,029
Reserve	13	11	125	112	29
DoD					
Active	2,108	2,151	9,054	7,208	2,555
Res/Gd Total	61	65	430	369	80
DoD Total	2,169	2,216	9,484	7,577	2,635

Other Enlisted Commissioning Programs

The Air Force, Navy, and Marine Corps each have enlisted commissioning programs in addition to Officer Candidate courses. The purposes of these programs are: (1) to provide a source of officers in specific skills with an expected high rate of retention; (2) to provide an avenue whereby enlisted personnel with proven qualifications can augment the commissioned ranks; and (3) to provide a measure of motivation to enlisted personnel. The Navy's Enlisted Commissioning Programs now number six and and have a planned training load of 1235 in FY 1983; up 54% from the FY 1981 load of about 800. This expansion calls for doubling participation those Navy precommision programs which provide up to four years of college education leading to a baccalaureate degree in engineering or mathematics and a commission in the Regular Navy or Marine Corps. A similar program, the Marine Enlisted Commissioning Education Program, has been expanded to offer degrees in technical and liberal arts academic disciplines. Students in the USAF Airman Education and Commissioning Program (AECP) major in engineering and computer science or physical science, with matriculation up to three years; the average academic time spent in the program is about 27 months. In all these enlisted commissioning programs, participants attend the Officer Candidate School of their Service before they are commissioned.

Both the Air Force and the Navy have placed a special focus on enlisted commissioning programs to increase officer procurement in FY 1982 and again in FY 1983. The Air Force plans to double enlisted participation in the USAF Airmen Education and Commissioning Program to identify future officer candidates. The Navy is encouraging expansion in serveral of its enlisted commissioning programs, including BOOST, to identify potential nuclear, flight and other technically oriented officer candidates. These programs provide a reliable alternative to OCS/OTC officer accessions and like OCS/OTS, this education carries an active duty requirement.

The following table displays load data for these programs. All participants are members of the active forces.

Training Inputs, Outputs, Loads, Other Enlisted Commissioning Programs, FY 1981-83

Service	FY 81 Load	FY 82 Load	FY 83 Input	FY 83 Output	FY 83 Load
Navy	804	959	1,033	837	1,235
Marine Corps	153	129	82	72	129
Air Force	581	750	600	480	1,000
DoD Total	1,538	1,838	1,715	1,389	2,364

Health Professions Acquisition Programs

This subcategory may be conveniently divided into three parts, the Armed Forces Health Professions Scholarship Program and the Uniformed

Services University of the Health Sciences Program, and "other health professions acquisition programs."

The Health Professions Scholarship Program was established in 1972 by Public Law 92-426. Participants are selected from among students, or those accepted for enrollment, in recognized health professions schools. Participants are commissioned in grade 01 in the Reserve of their parent Service, but, except for a short period of annual active duty, are not in active status. They are, therefore, not included within the training loads of their Services. Upon graduation, participants must serve obligated tours of duty, the length of which depends on the length of their participation in the program.

The program is authorized a total of 5,000 scholarships at its current level. Service data for FY 1983 is shown in the following table:

Health Professions Acquisition Program, Scholarships Awarded and Graduates, FY 1983

Service	Scholarships	FY 1983 Graduates
Army	1,850	491
Navy	1,575	480
Air Force	1,575	457
DoD Total	5,000	1,428

"Other Health Professionals Acquisition Programs" include a variety of programs with the purpose of recruiting required health professionals into the Services through tuition assistance or other aid. These programs were terminated in FY 1981 since the Services are obtaining these resources through other accession programs.

An additional acquisition program for health professionals, the Uniformed Services University of the Health Sciences (USUHS), began operation in 1976. In accordance with PL 92-426, the student body of the USUHS is composed of commissioned officers of the Uniformed Services. The first students graduated from this program in 1980.

The USUHS plans an incoming class of 148 medical students in FY 1983. This institution will, over the long term, provide approximately 25 percent of DoD's projected physician requirements. By FY 1985, the University will reach its designed capacity of 700 medical students. Training inputs, output and loads for this DoD school for FY 1981-1983 are shown below.

Training Inputs, Outputs, Loads, USUHS FY 1981-83

FY 81 Load	FY 82 Load	FY 83 Input	FY 83 Output	FY 83 Load
499	550	148	117	581

SPECIALIZED SKILL TRAINING

General Description

Specialized Skill Training provides officer and enlisted personnel with skills and knowledge needed to perform specific jobs. Each Service has established a job structure that makes it possible for it to carry out its assigned missions. Each position in each organization within that job structure has been analyzed to determine the skills necessary to insure that each job is done properly and efficiently. The purpose of Specialized Skill Training is to impart these required skills to the proper number of individuals in a phased manner so that each position vacancy in the structure can be filled promptly with a qualified replacement.

Specialized Skill Training, as used in this report, is characterized by the following:

Inclusions: Initial, progression and functional training for both officers and enlisted personnel. Specialized Skill Training specifically includes Army Advanced Individual Training and Navy Apprenticeship Training. This training category also includes aviation-related ground training and enlisted leadership training below the level of that carried in Professional Development Education.

Exclusions: All Officer Acquisition Training programs, notably Officer Candidate School, formerly included in Specialized Training budget documents.

Army One-Station Unit Training (OSUT), like Specialized Skill Training, provides Army personnel with job-related training in a number of skills. However, since OSUT is conducted as one continuous course which combines Recruit and Specialized Skill Training, it is treated separately in this report (see Chapter III), and OSUT loads are not included in the Specialized Skill Training loads in this chapter.

Specialized Skill Training loads increase by over 12,000, from 121,000 in FY 1981 to 133,000 in FY 1982, and account for much of the expanded volume of training in DoD in FY 1983. Plans to increase the force structure of the Reserve Components are reflected in greater specialized training loads for both the enlisted and officer corps of the Reserve Components in FY 1983. To improve job performance and readiness, the Air Force has increased the average course length of Enlisted Initial Skill Training by an additional week, for a total of 12.3 weeks in FY 1983. DoD wide the requirement to improve the technical skills of career personnel to keep pace with new equipment acquisition and modifications to the existing inventory will continue into the foreseeable future and this too, is reflected in the overall increase in Specialized Skill training loads for FY 1983.

Specialized Skill Training loads for FY 1974-83 are as shown in the
table on the following page. In this table and in all others included in this
chapter a caveat is in order with regard to the Marine Corps training load.
Prior to 1980 the Marine Corps training loads included Special Landing
Forces Training. This has been and remains categorized as an operational
exercise. Hence, Special Landing Forces Training is deleted from Special-
ized Skill Training loads to make the 1982 and 1983 data more comparable
to the President's budget.

Specialized Skill Training Loads, FY 1974-83

Service Component	FY 74	FY 75	FY 76	FY 77	FY 78	FY 79	FY 80	FY 81	FY 82	FY 83
Army a/										
Active	46,039	49,561	42,630	41,399	35,883	32,576	39,089	38,168	39,736	40,729
Nat'l. Guard	4,294	4,379	6,488	6,614	7,098	3,970	5,183	5,114	5,506	5,660
Reserve	1,701	2,143	3,219	4,259	3,563	2,514	3,677	5,064	6,545	7,086
Navy										
Active	37,199	35,165	37,117	35,227	35,933	35,973	35,874	37,738	38,855	40,911
Reserve	1,155	676	552	510	546	467	469	535	668	644
Marine Corps										
Active	11,490	9,981	11,117	9,877	9,442	10,560 b/	7,624	8,527	8,849	9,224
Reserve	415	621	588	651	662	560	504	838	870	818
Air Force										
Active	30,070	26,092	26,531	25,238	22,629	20,167	21,445	23,310	23,630	26,331
Nat'l. Guard	657	792	1,085	1,035	1,040	912	1,031	1,256	1,228	1,209
Reserve	319	575	684	686	681	565	591	692	727	779
DoD										
Active	124,798	120,799	117,395	111,741	103,887	99,273	104,032	107,743	111,070	117,195
Gd/Res Total	8,541	9,186	12,616	13,755	13,590	8,987	11,455	13,499	15,544	16,196
DoD Total	133,339	129,985	130,011	125,496	117,477	108,260	115,487	121,242	126,614	133,391

a/ Data do not include Army One-Station Unit Training loads.
b/ Prior to 1980, the Marine Corps training loads include Special Landing Forces Training operations. The data for FY 80-83 reflect only those training loads associated with training (Program 8) in the President's budget for FY 1983. The magnitude of the Special Landing Forces Training loads is about 2,500 per year.

As in the other types of training covered in this report, the demand placed on the training establishment for individuals with certain skills is determined by comparing projected requirements for each skill and skill level with the projected future inventory of trained service-members.

When anticipated losses are deducted from the current inventory, shortages in various skill areas are revealed. These shortages, except for those that can be satisfied through on-the-job training, or, in a few cases, through lateral entry from civilian life of individuals who already possess an employable skill, create a demand for a phased output of trained replacement personnel. Estimates are made of the portion of students in each training course who will fail to complete the course. These course attrition factors determine the inputs necessary to achieve the desired course outputs. Inputs, outputs, attrition patterns, and course lengths determine the training loads. These factors are discussed for each sub-category of Specialized Skill Training in the remainder of this chapter.

Specialized Skill Training is the most diverse of the major categories of individual training. In the interest of clarity, the full category has been divided into five sub-categories. Two are concerned with initial skill training, one for officers, the other for enlisted personnel; two others cover more advanced training, again divided by officer and enlisted. The last category covers both officer and enlisted training which, for the most part, imparts required knowledge or skills without changing the student's primary skill or skill level.

Initial Skill Training (Enlisted)

Initial Skill Training (Enlisted) includes all formal training normally given immediately after Recruit Training and leading toward the award of a military occupational specialty or rating at the lowest skill level. Successful completion of the training qualifies the enlisted member to take a position in the job structure of the Service and to progress, through job experience, to the journeyman level. Army One-Station Unit Training satisfies this same purpose but, because it combines the skill training with recruit training in a single course, it is treated separately in this report.

The great majority of Service recruits are drawn from the least skilled segment of the population. Most recruits are under age 21 and have little civilian job experience. In addition, some civilian specialties are not in demand in the military job structure, and many of the most important military skills have no civilian counterpart. Consequently, only a small number of people enter the Service with a skill that can be used with little or no additional training, and enlistees must be trained in a skill before they can become productive. Some skills can be acquired through experience and on-the-job training. Most, however, are most effectively and efficiently learned through

formal courses. In some situations, on board ship for example, the opportunity for on-the-job training is often limited.

Load data for Initial Skill Training (Enlisted) are displayed in the following table. The classification of this training is determined by its purpose, rather than by whether entrants attend immediately after Recruit Training. Thus some prior-service students and cross-trainees from other skill areas are reflected in these data.

Training Inputs, Outputs, Loads, Initial Skill Training (Enlisted)
FY 1981-83

Service	FY 81	FY 82	FY 83		
Component	Load	Load	Input	Output	Load
Army					
Active	19,734	17,684	92,695	83,178	18,016
Reserve	3,359	4,287	26,487	23,826	4,398
Nat'l Guard	4,178	4,406	25,974	24,079	4,608
Navy					
Active	21,815	20,952	181,195	170,014	22,563
Reserve	352	428	3,600	3,300	401
USMC					
Active	5,631	5,740	45,590	42,471	6,055
Reserve	738	767	5,987	5,645	714
Air Force				71133	
Active	16,677	15,848	73,332	~~66,732~~	18,035
Reserve	568	579	4,379	4,226	609
Nat'l Guard	1,033	939	5,341	5,094	930
DoD					
Active	63,857	60,224	392,812	362,395	64,669
Res/Gd Total	10,228	11,406	71,768	66,170	11,660
DoD Total	74,085	71,630	464,580	428,565	76,329

Reflecting the variety of skills required in the four Services, there are a large number of courses for enlisted personnel in Initial Skill Training, as shown in the following table:

Number of Courses, Initial Skill Training (Enlisted), FY 1983

Army	Navy	Marine Corps	Air Force
531	158	65	366

Initial Skill courses include general skills, intelligence, cryptography, and health service training. Some of these courses are in highly technical skills, such as nuclear reactor specialist or electronics technician. Others involve less complex, but not less important, skills -- cook, clerk-typist, mechanic, and vehicle driver. A sampling of courses in each Service with the most students in FY 1983 is shown below:

	No. of Students	Course Length (in days)
Army a/		
Air Borne	18,864	21
Basic Medical Specialist	10,953	42
Administrative Specialist	9,932	52
Primary Non-Comm Officers Course	5,416	28
Primary Leadership Course (PLC)	4,047	28
Material Storage & Handling Specialist	3,426	21
FVS/ITX Automotive Mechanic	3,340	58
Motor Transport Operator	3,329	49
Navy		
Apprentice Training b/	25,656	28
Basic Electricity/Electronics	23,585	60
Aviation Fundamentals	17,392	10
Propulsion Engineer Basic	9,265	26
Basic Enlisted Submarine	5,797	39
Marine Corps		
Rifleman	5,559	28
Adminstrative Clerk	3,058	28
Field Radio Operator	2,392	49
Basic Electronics	2,086	91
Antitank Assault Man	1,657	28
Mortarman	1,384	28
Air Force		
Security Specialist	6,827	45
Aircraft Maintenance Specialist (Tactical)	3,766	28
Aircraft Maintenance Specialist (Airlift/Bombardment)	3,356	28
Law Enforcement Specialist	3,143	41
Administrative Support Staff Specialist	2,169	41
Aerospace Ground Equipment Mechanic	2,044	112
Jet Engine Mechanic	1,913	59
Inventory Management Specialist	1,913	39

a/ Many of the Army high-density skills and combat skills (armor crewman, artilleryman, etc.) will be trained through One-Station Unit Training (OSUT) in FY 1983.

b/ Apprentice Training is composed of fundamental training in one of four basic skill areas: Seaman, Fireman, Airman, Constructionman. The course length shown is the average for those four skills.

Course lengths vary widely according to the complexity of the subject matter. For example, the Air Force course for electronic computer systems specialist is 187 calendar days in length, whereas the course for pavements maintenance specialist takes only 20 days. Army nuclear power plant operators receive an entire year of training, but motor transport operators and general construction machine operators complete their training in 35 days. The Navy average is low in comparison to the others because it includes a large number of students in short courses related to particular shipboard duties and because of the predominance of the relatively short apprentice courses; in addition, Navy personnel, to a greater degree than personnel of other Services, receive supplementary formal training during their first enlistments.

In the Air Force the weighted average course length in enlisted Initial Skill Training is increased from 11.5 weeks (FY 1982) to 12.3 weeks (FY 1983), with a corresponding increase in student load. Increases are in hard technical skills such as aircraft maintenance, avionics, munitions, and digital technology. Theory and basic principles training will be restored to course curricula because of this training has been proven essential but impractial for delivery via on-the-job training (OJT).

Average Course Lengths, Initial Skill Training (Enlisted), FY 1983

Army	Navy	Marine Corps	Air Force
64	43	80	86

The final determinant of training loads is the anticipated rate of attrition. Attrition rates must be estimated for each course. The rate may be negligible for a reasonably routine course for which students entered in the course have the necessary abilities and motivation. Attrition may run much higher, up to one-third of the class entrants, in complex technical subjects, such as the Army Nuclear Weapons Electronic Specialist course. In contrast to policies governing Recruit Training, most of the students who fail to complete these courses are retrained in other skills rather than discharged. DoD-wide this improved quality of recruits, as measured by the increased number of high school diploma graduates, is projected to bring down attrition rates in FY 1982 and FY 1983. The average anticipated rates for FY 1983 are as shown:

Average Attrition Rates, Initial Skill Training (Enlisted), FY 1982 and FY 1983
(Percent)

	Army	Navy	Marine Corps	Air Force
FY 1982	11.7%	7.1%	7.3%	9.9%
FY 1983	9.9%	6.9%	6.4%	9.0%

Skill Progression Training (Enlisted)

This sub-category covers skill training received by enlisted personnel subsequent to Initial Skill Training. Through this training, the student gains the knowledge to perform at a more skilled level or in a supervisory position. Skill Progression Training is most frequently given after the servicemember has gained experience through actual work in his or her specialty. In some cases, however, training in a relatively narrow subject area as an immediate follow-on to Initial Skill Training is included in Skill Progression Training.

Training load data for Skill Progression Training (Enlisted) are shown in the following table:

Training Inputs, Outputs, Loads, Skill Progression Training (Enlisted), FY 1981-83

Service Component	FY 81 Load	FY 82 Load	FY 83 Input	FY 83 Output	FY 83 Load
Army					
Active	2,747	2,989	14,196	13,243	2,754
Reserve	239	309	2,842	2,635	416
Nat'l Guard	177	209	1,573	1,472	213
Navy					
Active	9,744	10,637	81,772	77,629	11,257
Reserve	18	11	191	171	11
USMC					
Active	1,142	1,207	6,200	5,755	1,177
Reserve	58	59	549	533	60
Air Force					
Active	4,957	5,625	68,133	66,442	5,940
Reserve	58	54	1,745	1,681	57
Nat'l Guard	175	205	3,841	3,761	186
DoD					
Active	18,590	20,485	170,301	163,069	21,128
Res/Gd Total	725	847	10,741	10,253	943
DoD Total	19,315	21,332	181,042	173,322	22,071

The requirement for Skill Progression Training arises from the fact that training in a skill at entry level and subsequent experience do not, in many cases, fully qualify a servicemember to do the more advanced jobs in his or her field without further formal training. Several factors may contribute, singly or in combination, to a need for additional formal training:

1.   The introduction of new equipment.

2.   The need to produce a higher degree of skill in a sub-specialty.

3.   The need to impart a broader base of knowledge to qualify an individual for a supervisory responsibility.

4.   The requirement for refresher training to bring the service-member up to date on the latest information and techniques in his or her skill.

The primary need, as in all other types of training, is to have trained individuals available to replace losses as they occur. Planning future training in this sub-category follows the same general pattern as for Initial Skill Training. Some additional complications, however, are introduced by the fact that members eligible for schooling are frequently serving overseas or on board ship, rather than flowing from the Recruit Training pipeline. This situation frequently requires that personnel receive the training when they are available, preferably between duty assignments, rather than when they might more easily be accommodated for formal school training.

The following table displays statistics in Skill Progression Training in each of the Services for FY 1983. The Air Force reports an increase in courses as compared to last year's MMTR, as a result of new courses in new weapons systems maintenance.

Skill Progression Training (Enlisted), FY 1983

	Army	Navy	Marine Corps	Air Force
Number of Courses	175	1,236	52	1,077
Average Course Lengths (Days)	53	47	72	32
Projected Attrition Rate (Percent)	6.8%	5.0%	7.2%	2.5%

The Air Force's average days in training is low compared to the other Services because of the large use of short courses. The large number of Navy and Air Force courses is a reflection of the technical nature of these Services and their large number of subspecialties. Of course, part of the difference is due to differing Service approaches to course definition and segmenting.

Initial Skill Training (Officer)

As a general rule, Officer Acquisition Training is oriented toward
the broad educational background and general military training which is
considered necessary for all officers entering a Service. In consequence,
most newly commissioned officers require further training for the
specific type of duty they will be performing in their first duty assign-
ment. Initial Skill Training for officers is, therefore, analogous to
Initial Skill Training for enlisted personnel -- both provide the job-
oriented training which, added to the military fundamentals learned
earlier, prepares the individual for taking a place in the job structure.

Load data for Initial Skill Training (Officer) are displayed in the
following table. The increased inputs and loads for both the Navy and
Air Force are driven in part by an initiative to increase officer acquisitions
by bringing qualified enlisted personnel up through the ranks.

Training Inputs, Outputs, Loads, Initial Skill Training (Officer), FY 1981-83

| Service | FY 81 | FY 82 | FY 83 | | |
Component	Load	Load	Input	Output	Load
Army					
Active	2,670	2,576	11,307	11,146	2,430
Reserve	904	1,086	5,249	5,158	1,173
Nat'l Guard	395	499	2,282	2,248	475
Navy					
Active	1,454	1,547	6,750	6,375	1,562
Reserve	1	14	160	155	14
USMC					
Active	927	1,009	3,991	3,756	1,105
Reserve	3	3	75	75	3
Air Force					
Active	866	1,176	7,855	7,731	1,294
Reserve	29	36	357	336	49
Nat'l Guard	28	40	393	376	40
DoD					
Active	5,917	6,308	29,903	29,008	6,391
Res/Gd Total	1,360	1,678	8,516	8,348	1,754
DoD Total	7,277	7,986	38,419	37,356	8,145

With minor exceptions, all newly commissioned Army officers attend
officer basic courses at their branch schools -- Infantry officers at the
Infantry School, Engineer officers at the Engineer School, etc. Most of
these courses are 11 weeks in length, and the officer attends before
reporting to his or her first unit of assignment. In addition, certain
officers are selected to attend follow-on skill or functional training
courses for more specialized assignments.

All submarine and nuclear officers and most Surface Navy officers go to Initial Skill Training. The Navy provides 32 courses for officers in Initial Skill Training, with an average course length of 81.2 days.

All newly commissioned Marine Corps officers attend a basic course for general orientation and training. In addition, Marine Corps officers attend 18 Initial Skill Training courses sponsored by the Corps. They may participate in approximately 30 others conducted by the Navy or other Services. Such courses average 98 days in length and are related to specific officer jobs.

The Air Force conducts 62 Initial Skill Training courses for officers, with an average of 57 days in length; about 45 percent of newly commissioned officers attend these courses.

Skill Progression Training (Officer)

Skill Progression Training for officers is, in general, aimed at officers with several years of practical experience and provides them knowledge needed to assume more advanced responsibilities. For example, the Army provides advanced courses which are structured to prepare the students for battalion and brigade staff duties in addition to command responsibilities at the company and battery level. Data for Skill Progression Training (Officer) are displayed in the following table.

Training Inputs, Outputs, Loads, Skill Progression Training (Officer), FY 1981-83

Service Component	FY 81 Load	FY 82 Load	FY 83 Input	FY 83 Output	FY 83 Load
Army					
Active	3,505	4,018	13,557	13,303	4,188
Reserve	254	240	2,056	2,025	325
Nat'l Guard	201	199	918	908	177
Navy					
Active	950	1,117	8,677	8,593	1,120
Reserve	12	10	300	294	10
USMC					
Active	192	203	1,448	1,447	199
Reserve	13	12	164	164	12
Air Force					
Active	599	718	13,884	13,848	747
Reserve	24	38	992	970	39
Nat'l Guard	13	30	882	873	33
DoD					
Active	5,246	6,056	37,566	37,191	6,254
Res/Gd Total	517	529	5,312	5,234	596
DoD Total	5,763	6,585	42,878	42,425	6,850

The Army conducts 104 courses averaging 103 days in length. The Navy maintains 140 courses, averaging 31 days in length, which cover a variety of specialized duties that are typically performed by officers with several years of service -- for example, destroyer officer course, aviation maintenance officer course, and nuclear propulsion plant course.

Both the Marine Corps and the Air Force conduct broad courses for officers at about the same level as the Army's advanced courses; however, as these are Service-wide and uniform in content, they are carried in Professional Development Education. Within Skill Progression Training, Marine Corps officers attend 11 courses sponsored by the Corps. They also utilize the course offerings of the other Services. The Air Force has 496 courses, averaging 14 days each, for the purpose of training officers in new duties required by their prospective assignments.

Attrition from the Skill Progession courses for officers is significantly lower than for enlisted training or initial skill officer training. Attrition less than 1% is typical of such courses.

Functional Training (Officer and Enlisted)

Functional Training is an "all other" sub-category covering those types of required training that do not fit neatly into the definitions of the other sub-categories. By and large, Functional Training is in subject areas that cut across the scope of military occupational specialties and provides additional required skills without changing the student's primary speciality or skill level. An example is a Damage Control Course conducted by the Navy. Both officers and enlisted personnel participate in Functional Training. Load data for Functional Training are shown in the following table.

Training Inputs, Outputs, Loads, Functional Training, (Officer and Enlisted) FY 1981-83

Service Component	FY 81 Load	FY 82 Load	FY 83 Input	FY 83 Output	FY 83 Load
Army					
Active	9,512	12,469	132,675	120,984	13,341
Reserve	308	623	8,829	7,701	774
Nat'l Guard	163	193	2,993	2,875	187
Navy					
Active	3,775	4,602	341,654	337,359	4,409
Reserve	152	205	13, 127	12,727	208
USMC					
Active	635	690	7,668	6,949	688
Reserve	26	29	727	715	29
Air Force					
Active	211	236	10,684	10,577	315
Reserve	13	20	817	809	25
Natl Guard	7	14	698	692	20
DoD					
Active	14,133	17,997	492,681	475,869	18,753
Res/Gd Total	669	1,084	27,191	25,519	1,243
DoD Total	14,802	19,081	519,874	501,388	19,996

Army Functional Training includes the airborne, ranger, and special forces qualification courses, some specialized NCO supervision courses, and a number of courses related to specialized equipment (e.g., Manual Cordless Switchboard Repair; 8-inch Atomic Projectile Assembly).

Navy Functional Training differs from that of the other Services because of the very high input to a large number of very short courses. Most of the training consists of in-port training for ships' crews, and includes the following types of activity:

    1.   Shore training for shipboard teams (firefighting, damage control, anti-submarine warfare, etc.).

    2.   Short basic or refresher courses at fleet training centers in the operation of equipment or systems.

    3.   Shipboard in-port training assistance.

    4.   Precommissioning training for newly formed crews of ships under construction.

Marine Corps Functional Training provides skills required for specific jobs but not limited to a primary occupational specialty. Some of the included courses are scuba training, sea duty indoctrination, and drill instructor training.

All Air Force Functional Training is survival training related to various environments: water, arctic, jungle, or tropic. This course trains air cres the skills for long-term combat survival and survival in chemical, biological, and radiological contaminated environments. The Basic Survival Course length has been increased from 15 to 17 days. Besides lengthening the course, the sequencing of survival training has been increased to twice a week to accommodate the growing numbers of air crews. The longer course length, additional sections of the course, and more air crews who need this kind of training account for the increased functional traning loads reported by the Air Force in FY 1983.

The following table provides additional statistics on Functional Training.

Courses and Course Lengths, Functional Training, FY 1983

	Army	Navy	Marine Corps	Air Force
Number of Courses	399	1,402	30	8
Average Course Length (Days)	26	4	15	17

FLIGHT TRAINING

General Description

Flight Training programs provide basic flying skills required prior to operational assignment of pilots, navigators, and naval flight officers. Most of the training in this category is undergraduate flight training; at the conclusion of this training, a graduate is awarded "wings" and is classified as a "designated" or "rated" officer. Flight Training includes programs for pilots of all Services, navigators in the Air Force, and naval flight officers in the Navy and Marine Corps. Pilot training may be in jet or propeller-driven fixed-wing aircraft, or in helicopters. Some related advanced flight training, such as Army instructor pilot training and Air Force navigator/bombardier and electronic warfare training, is also included in Flight Training. Enlisted programs in aviation-related subjects (for example, in air traffic control) and Air Force survival training are in Specialized Skill Training. Marine Corps enlisted navigator training is included in Flight Training.

Flight Training loads, by Service and component, for Fiscal Years 1974 through 1983 are shown in the following table:

Total Flight Training Loads, FY 1974-83

Service/Component	FY 74	FY 75	FY 76	FY 77	FY 78	FY 79	FY 80	FY 81	FY 82	FY 83
Army										
Active	704	712	709	623	724	813	1,204	1,204	1,198	1,375
Natl Guard	69	40	28	35	72	89	80	44	46	97
Reserve	16	10	10	15	42	49	31	87	89	175
Navy										
Active	1,739	1,495	1,442	1,335	1,287	1,065	1,253	1,614	1,676	1,752
USMC										
Active	988	599	563	658	692	859	790	692	682	680
Air Force										
Active	4,062	3,071	2,068	1,978	1,723	2,025	2,467	2,688	3,088	3,216
Natl Guard	137	127	90	97	94	128	128	61	79	89
Reserve	48	38	35	30	34	37	51	161	237	272
DoD										
Active	7,493	5,877	4,782	4,594	4,426	4,762	5,714	6,198	6,644	7,023
Res/Gd Tot	416	270	215	163	177	242	303	353	451	633
DoD Total	7,763	6,092	4,945	4,771	4,668	5,065	6,004	6,551	7,095	7,656

Flight Training loads were reduced by approximately 45 percent over the period FY 1974 to FY 1978 because of the net effect of the following factors:

- Peacetime reductions in active force aviator requirements in all Services, except for moderate increases in Army aviator requirements associated with the 16-division force objective in the later years.

- Restriction of undergraduate flight training for Reserve Component members to the number needed to fill positions in reserve aviation units that could not be filled through recruitment of experienced aviators leaving active duty -- as, for example, positions in aviation units that are remote from major population centers.

The Service trends for flight training in FY 1983 call for sustaining the higher rates of pilot and navigator training initiated in FY 1982. The higher rates reflect an ongoing effort to return pilot and crew inventories to long-term sustainable levels, levels which in the recent past were adversely affected by several years of unexpectedly high attrition rates for flight-training personnel. More undergraduate helicopter pilot training for the Army's active and reserve components is planned. This will increase the Army's active and reserve pilot inventories and increase the deployability of reserve air detachments. The Air Force is stepping up Navigator Training to match the planned long-term increase in pilot inventories and to increase rotational potential for Air Force navigators now serving extended assignments in the cockpit.

For purposes of clarity, the following discussion of aviation training is divided into three sections -- Undergraduate Pilot Training, Navigator Training, and All Other Flight Training, each treating a sub-category of Flight Training.

Undergraduate Pilot Training

The purpose of Undergraduate Pilot Training is to qualify students to perform the basic duties and assume the responsibilities of military pilots. Courses include sufficient flying training to allow the student to attain proficiency in the general class of aircraft (jet, prop, or helicopter) he/she will be flying in future assignments. Training through flying or in flight simulators is augmented by flight-related ground training and, ordinarily, some officer professional development training to prepare the student for the responsibilities of a junior officer. For the Army, which uses a large number of warrant officer pilots, enlisted entrants undergo warrant officer candidate training before entering flight phases of training; they receive their warrants upon graduation from flight training. A minority of Army flight training students are already commissioned officers upon entry. The Navy also has conducted Navy officer training for aviation officer candidates concurrently with the early phases of flight training.

Training data for FY 1981-83 are displayed in the following table:

Training Inputs, Outputs, Loads, Undergraduate Pilot Training, FY 1981-83

Service Component	FY 81 Load	FY 82 Load	FY 83 Input	FY 83 Output	FY 83 Load
Army					
Active	1005	999	1,845	1,457	1,144
Reserve	30	30	124	92	78
Natl Guard	61	61	191	136	120
Navy					
Active	1,129	1,215	1,685	1,088	1,279
USMC					
Active	642	640	680	500	638
Air Force					
Active	1,867	2,060	2,519	2,000	2,070
Reserve	56	62	92	60	68
Natl Guard	106	152	218	174	184
DoD					
Active	4,643	4,914	8,420	6,812	5,131
Res/Gd Tot	253	305	917	791	450
DoD Total	4,896	5,219	9,337	7,603	5,581

Load data for each Service for undergraduate helicopter pilot training are shown below.

Training Inputs, Outputs, Loads, Undergraduate Helicopter Pilot Training, FY 1981-83

| Service | FY 81 | FY 82 | FY 83 | | |
Component	Load	Load	Input	Output	Load
Army					
Active	1,005	999	1,845	1,457	1,144
Reserve	30	30	124	92	78
Natl Guard	61	61	191	136	120
Navy					
Active	272	310	539	321	332
USMC					
Active	279	280	344	260	278
Air Force					
Active	83	77	120	100	80
Reserve	-	-	-	-	-
Natl Guard	-	3	3	3	2
DoD					
Active	1,639	1,666	4,539	3,905	1,834
Res/Gd Tot	91	94	610	560	200
DoD Total	1,730	1,760	5,149	4,465	2,034

The following table shows programmed course lengths and projected attrition rates for the Army undergraduate helicopter pilot training program.

Course Length and Attrition Rates, Army Undergraduate Helicopter Pilot Training FY 1983

| | Commissioned Officers | Warrant Officer Candidates | |
		Officer Training	Flight
Course Length (weeks)	34	6	34
Attrition Rate	10%	13%	16%

The Army course is six weeks longer for warrant officer candidates than for commissioned officers, since the course also serves as a warrant officer candidate school.

Navy Undergraduate Pilot Training begins with a common core of basic ground training and primary flight training and then diverges according to whether the student is to be qualified in jet aircraft, propeller aircraft or helicopters. The basic ground phase, or environmental indoctrination phase, is four weeks in length for officer students and 12 weeks for

aviation officer candidates, since this phase also serves as an officer training period for the latter group.

The following table shows course lengths, attrition rates, and type of aircraft used for training for each phase of the syllabus:

Course Phasing, Navy/Marine Corps
Undergraduate Pilot Training, FY 83

Course/Phase		Course Length (Weeks)	Attrition Rate (Percent)	Type Aircraft
Commissioned Officers Aviation Pre-flight Indoctrination		6	4%	----
Aviation Officer Candidates		14 a/	15%	----
Primary Training	Jet	19.5	16%	T34C/T28B
	Prop	19.5	16%	T34C/T28B
	Helo	19.5	16%	T34C/T28B
Strike Training (Jet)				
Intermediate Jet		22.3	8%	T2C
Advanced Jet		18.4	4%	TA4J
Maritime Training (Prop)				
Intermediate Prop		5	2%	T34C/T28B
Advanced Prop		18.4	2%	T44A
Helicopter Training				
Intermediate Helo		5	2%	T34C/T28B
Transition Helo		5	2%	TH57A
Advanced Helo		11	4%	H-1

a/ Includes 6 weeks Aviation Pre-flight Indoctrination.

Because of the task requirements which dictate variations in course content, the standard Undergraduate Pilot Training course is as short as 45 weeks for an officer student qualifying in propeller-driven aircraft or as long as 73 weeks for an aviation officer candidate qualifying in jets. Actual course duration may be longer because of unforeseen circumstances such as major aircraft groundings, fuel shortages, or inclement weather.

The Navy plans to increase primary and strike jet training significantly in FY 1983 as shown below:

	FY 82	FY 83
Primary Training Jet	17 wks	19.5 wks
Intermediate Jet	20 wks	22.3 wks

The changes in duration for various phases of Undergraduate Pilot Training are the result of full inplementation of the Navy Integrated Flight Training System (NIFITS). Complete implementation of the NIFITS syllabi was not possible until this year due in part to slippages in the delivery of flight simulators.

The following table displays load data for Navy and Marine Corps Undergraduate Pilot Training. All participants are in the active force.

Training Inputs, Outputs, Loads, Navy/Marine Corps Undergraduate Pilot Training, FY 1981-83

Service	FY 81 Load	FY 82 Load	FY 83 Input	FY 83 Output	FY 83 Load
Navy					
Jet	534	537	611	394	561
Prop	323	368	535	373	386
Helo	272	310	539	321	473
USMC					
Jet	337	333	304	216	333
Prop	26	27	32	24	27
Helo	279	280	344	260	278

The final program of Undergraduate Pilot Training is Air Force training of jet pilots. All Air Force pilots, except helicopter pilots trained in the Army program, are trained in this all-jet program. The standard course length is 49 weeks. Forecasted attrition for FY 1983 is 19.0 percent, not including that which occurs in the flight screening of the Flight Familiarization Training program. Load data are shown in the following table:

Training Inputs, Outputs, Loads, Air Force Undergraduate Jet Pilot Training, FY 1981-83

	FY 81 Load	FY 82 Load	FY 83 Input	FY 83 Output	FY 83 Load
Active	1,784	1,983	2,399	1,900	1,990
Reserve	56	62	92	60	68
Natl Guard	106	149	215	171	182
Total	1,946	2,194	2,706	2,131	2,240

At the conclusion of Undergraduate Pilot Training, the new pilot is capable of operating an aircraft in such a manner that future training required, in order to accomplish a specific mission, is limited to advanced flight training in aircraft used in operational units and training in the employment of applicable mission weapon systems.

Undergraduate Navigator Training

The Navy trains Navy and Marine Corps personnel to become Naval Flight Officers. The Air Force trains its personnel as navigators. The duties of Naval Flight Officers and Air Force navigators are not precisely the same because of mission differences. But at the undergraduate level, they are sufficiently similar that they are referred to collectively in this report as "navigators". (The Army does not train or use navigators.)

The Undergraduate Naval Flight Officer (NFO) training program is a building block training program. The training commences with aviation Pre-flight Indoctrination (6 weeks for officers) or Officer Candidate School (14 week for officer candidates) where the student is provided basic aeronautical and aviation physiological foundation knowledge. After completing this phase, the student enters the Basic phase. This 14.9 week course provides the student with the basic skills and knowledge needed to safely navigate, communicate, manage aircraft systems, and to describe two-plane formation maneuvers. Successful completion of Basic qualifies students for entrance into Interservice Undergraduate Navigation Training (22 weeks) conducted at Mather AFB, California (described in a later paragraph), or the Navy intermediate phase. The intermediate phase (6.8 weeks) expands the knowledge gained in Basic and requires higher skill and performance standards. Practical flight skills are developed in the ID23 computerized navigation/communications training device and the 2F101 simulators, the T-2C aircraft for jet acclimatization and high-speed navigation and the T-39 aircraft for jet instrument navigation. After successful attainment of the performance standards, the students proceed to one of the following advanced naval flight officer training phases which provides specific skills and knowledge: Radar Intercept Officer (16.7 weeks), Tactical Navigation (10.7 weeks), Overwater Jet Navigation (10.8 weeks), and Airborne Tactical Data Systems Officer (15 weeks).

The Air Force program consists of a 28 week basic course that includes 401 hours of academic instruction, 64 hours of flight simulator training, 68 hours of actual flight instruction in the T-43 aircraft, and 9.1 hours in the T-37 aircraft. After the basic course, a bomber, tanker, or cargo aircraft assignee continues training in the four-week Advanced Navigator Course which provides 26 simulator hours, and 20 flying hours in the T-43. A fighter or reconnaissance aircraft assignee receives an additional 10 hours of flight simulator training and 11.7 flying hours in the T-37 while attending the five-week Tactical Navigator Course.

The advanced segment of Undergraduate Navigator Training for Naval Flight Officers destined for the anti-submarine warfare community was merged into the Air Force program at Mather Air Force Base in California in 1976. Of the program described above, Naval Flight Officers receive 342 hours of academic instruction, 72 hours of simulator training and 80 hours of flight instruction in the T-43 aircraft during 22 weeks of training.

Undergraduate Navigator Training provides sufficient skills and knowledge so that further training for the newly rated navigator can be limited to advanced flight training in operational aircraft and training in employment of applicable weapon systems. Training load data for Undergraduate Navigator Training are shown in the following table:

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Training Inputs, Outputs, Loads, Undergraduate
Navigator Training, FY 1981-83

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| Service | FY 81 | FY 82 | FY 83 | | |
Component	Load	Load	Input	Output	Load
Navy					
Active	485	461	810	534	473
USMC					
Active	50	42	64	40	42
Air Force					
Active	473	590	2,075	1,828	693
Reserve	5	15	57	40	19
Natl Guard	49	75	239	218	79 1<
DoD					
Active	1,008	1,093	2,949	2,402	1,208
Res/Gd Tot	54	90	296	258	98
DoD Total	1,062	1,183	3,245	2,660	1,306

Other Flight Training

This category covers miscellaneous other types of flight training, including advanced flight training, flight familarization, and other flight programs not previously included in undergraduate pilot or navigator training. Load data are displayed in the following table:

Training Inputs, Outputs, Loads
Advanced, Familiarization, and Other Flight Training, FY 1981-83

Service Component	FY 81 Load	FY 82 Load	FY 83 Input	FY 83 Output	FY 83 Load
Army					
Active	199	199	1,953	1,953	231
Reserve	14	16	151	151	19
Natl Guard	26	28	319	319	54
Air Force					
Active	348	438	2,724	2,419	453
Reserve	0	2	11	12	2
Natl Guard	6	10	125	119	10
DoD					
Active	547	637	4,677	4,372	684
Res/Gd Tot	46	56	606	601	85
DoD Total	593	693	5,283	4,973	769

The Army includes in this category courses for instructor pilots and specific pilot qualification courses in various aircraft. Most of the courses are short, in the range of two to seven weeks.

The Air Force conducts a separate 24-day flight screening program for candidates for Undergraduate Pilot Training who have not had previous flight familiarization training. The resulting student loads are included in Other Flight Training. Similar training is provided to Air Force flight surgeons, most Air Force Academy cadets, some Air Force ROTC cadets, and a limited number of cadets and midshipmen from the Military and Naval Academies. The associated workload is included in the Service Academy loads and in ROTC enrollment figures.

The Navy and Marine Corps do not report training in this category, since postgraduate flight training is conducted under operational command auspices and Navy Flight Familiarization is conducted as a component of Officer Acquisition Training (see Chapter IV).

The Air Force Other Flight Training workload is limited largely to instructor courses for pilots and navigators and some specialized courses conducted by the Air Training Command in such fields as electronic warfare. Most Air Force postgraduate flight training is conducted under operational command auspices.

In each of the Services, graduates of undergraduate pilot and undergraduate navigator training receive supplementary training in the specific aircraft they will be flying on operational missions. Emphasis is placed on crew training and performance under conditions that would be encountered in combat. In the Army most of this training is provided as part of normal unit training by the operational unit to which the new

pilot is assigned. In the other Services, this additional training is provided by Navy fleet readiness squadrons, Marine combat crew readiness training squadrons, and Air Force combat crew training squadrons. As an exception, centrally conducted Army advanced flight training loads are included within Other Flight Training loads. However, most such training is classified as "crew and unit training" by the Navy, Marine Corps and Air Force and is not included in the loads of this report.

Determination of Requirements for Rated Officers

Flight Training rates are developed by comparing projections of future requirements for rated officers with projections of the future status of inventories of both reserve and active duty rated officers. Consideration is given to the need to have sufficient active duty aviators on hand, in appropriate grades. Requirements for rated officers include both the numbers needed to man the force in peacetime and the additional increment needed under approved mobilization scenarios to man and sustain the force when war breaks out. For analytical purposes, aviator require-ments are divided into two parts: unit and individuals. Requirements for aviators for each of these categories are computed to meet both (1) peace-time needs and (2) wartime mobilization needs under approved mobilization scenarios.

Unit requirements represent the number of rated officers needed to carry out operational, training, and management activities for programmed units. Each such authorized position (that is, military space or billet) requires a rated officer as an incumbent in order to carry out the functions of the job, either because the job involves flying duties (i.e., "operational flying" positions as defined for purposes of the Aviation Career Incentive Act of 1974) or requires flying experience. Other positions that may be occupied by rated officers for career broadening or similar purposes, but that do not require rated officer incumbents for accomplishing the duties, are not included. Unit require-ments have three subcomponents: force, training, and supervision.

Force requirements are the positions required to man and operate the Services' force aircraft. The number of force positions is a product of established crew ratios, or the number of crews per aircraft, which in turn take into account workload (flying hour) and readiness factors and the amount of mission flying and unit flight training that is necessary.

Training positions include the flyers who are conducting formal flight training.

The supervision component is made up of officer positions entailing actual supervision of flying and flight-related activities and the performance of staff jobs which require the expertise of a rated officer. These positions are subject to continuous scrutiny to assure that rated requirements are valid.

Individual requirements include the transients, students and other individuals needed to make it possible to provide for reasonable manning of positions in units.

Rated Officer Inventory Projections

Projecting rated officer inventories into the future must be based on historical experience, current judgment, and an appraisal of how the officers will react to conditions in the future (i.e., pay, morale, state of the civilian economy, civilian airline hiring plans, family satisfaction with service life, etc.). These estimates are projected for at least five years in the future. Comparisons of total force inventories of rated officers are then made against the computed total force requirements, and training rates for the entire five-year period are adjusted. This process is repeated each year so that adjustments can be made in training rates based on changes in requirements and/or updated inventory projections. This continuing process of adjustment is necessary to insure that the correct number of trained rated officers will be available in the future without large and expensive fluctuations in training rates.

Training Rate Adjustments

When a comparison of requirements and inventories discloses a shortage or overage of projected rated officers, training rates are adjusted upward or downward in order to bring the program back into balance. For example, if projected FY 1987 pilot requirements exceed projected inventories by 1,000, an increase in training rates (that is, output or production) of pilots of 250 per year starting in FY 1983 may be appropriate. Inputs into the training program would start in FY 1982 in order to obtain the first increase in desired output in FY 1983. This reevaluation process is repeated at least once each year, with adjustments made as necessary to avoid wide fluctuations in loads.

Determination of Training Loads

The process described above, through continuous updating of the comparison between projected rated officer requirements and inventories, leads to a requirement for phased output from the flight training establishment. The desired annual output, considering the anticipated attrition rates and the planned course lengths, as discussed in the preceding sections on the various types of flight training, establishes the size of the input necessary to achieve the target output. Training loads are then calculated, using these factors, to determine the average number of students to be on hand during the training year. For FY 1983, the currently recommended loads are those displayed previously in this chapter.

VII

PROFESSIONAL DEVELOPMENT EDUCATION

General Description

The purpose of Professional Development Education is to provide training and education to career military personnel to prepare them to perform the increasingly complex tasks that become their responsibilities as they progress in their military careers. Whereas Specialized Skill Training is directed toward specific job skills, Professional Development Education is concerned with broader professional development goals in such subjects as military science, engineering, medicine, and management. Professional Development Education is conducted at both military and civilian institutions. This category includes senior enlisted leadership training in recognition of the broad professional content of these courses, as opposed to the narrower skill-oriented training typical of most enlisted training programs. However, most of the programs in this category are for professional development of officers.

Training loads for FY 1974-83 are as shown in the table on the following page.

Professional Development Loads, FY 1974-83

Service Component	FY 74	FY 75	FY 76	FY 77	FY 78	FY 79	FY 80	FY 81	FY 82	FY 83
Army										
Active	5,868	4,480	4,023	3,424	3,374	3,109	2,402	2,614	2,729	2,749
Natl Guard	69	68	94	83	89	55	53	55	55	53
Reserve	103	80	125	55	60	45	56	58	65	77
Navy										
Active	5,723	4,081	2,767	1,762	1,616	1,556	1,582	1,686	2,004	2,048
Reserve	24	15	11	10	15	3	10	16	12	12
Marine Corps										
Active	1,079	980	801	697	728	637	647	654	661	665
Reserve	16	15	15	18	16	15	14	12	14	14
Air Force										
Active	4,889	4,704	4,491	4,324	3,520	3,222	3,191	3,284	3,475	3,943
Natl Guard	39	39	39	42	36	36	38	47	55	57
Reserve	49	70	32	34	39	35	44	40	41	43
DoD										
Active	17,559	14,245	12,082	10,207	9,238	8,524	7,822	8,074	8,705	9,241
Gd/Res Total	300	287	316	242	255	189	215	228	242	256
DoD Total	17,859	14,532	12,398	10,449	9,493	8,713	8,037	8,466	9,111	9,661

The total loads in the table show a considerable disparity among the Services in amounts of Professional Development Education. This disparity is more apparent than real, and is related mainly to somewhat different ways of categorizing Service education programs. The Army, Marine Corps, and Air Force, for example, conduct Enlisted Leadership Training courses, whereas the Navy does not, although it provides advanced technical training carried under Specialized Skill Training.

The first three subcategories of Professional Development Education are officer professional military development programs. These programs are at three levels: basic, intermediate, and senior.

Education in the military school system is fundamental to the development of military officers who are fully qualified to perform duties of high responsibility in both war and peace. In most non-military professions, growth in ability and knowledge is gained through experience. In the military, opportunities for full practice of the profession are limited to wartime, and even those officers with combat experience have not had the opportunity for thorough exercise of the decision skills they would require, for example, in a war in the Middle East. The military school system serves partially to fill this shortfall by educating the military officer in the skills and knowledge needed to perform his or her duties in a variety of locales and situations, both in peacetime and wartime.

In addition to their regular courses for active force officers, most schools in this category present nonresident courses and short seminars. Large numbers of Reserve Component officers and other military students are provided instruction through correspondence courses.

Basic Officers Professional Schools

The Marine Corps and Air Force conduct basic officer courses for officers with some experience in operational units. These courses are Service-wide in scope and are, therefore, carried in this report under Professional Development Education. The Army and Navy conduct courses that are at a similar level, but that are oriented toward specific skills (e.g., the Navy's Surface Warfare Officers Course) or somewhat broader skills within a specific part of the Service (e.g., the Army's Armor Officer Advanced Course). The Army and Navy courses, because of their specialization, are treated in this report as part of Specialized Skill Training.

The Marine Corps Amphibious Warfare Course is designed to prepare officers in the grade of captain for duties in battalion or squadron command or on regimental-level staffs. The course length is 38 weeks. The Air Force Squadron Officer School is an 8½-week course designed to prepare selected captains, after completion of some active service experience, for command and staff duties appropriate to their grade.

The training load data for FY 1981-83 associated with these Marine and Air Force courses are displayed in the following table.

Service Component	FY 81 Load	FY 82 Load	FY 83 Input	FY 83 Output	FY 83 Load
USMC					
Active	124	124	170	170	124
Reserve	6	8	210	210	8
Air Force					
Active	499	515	3,300	3,300	533
Reserve	1	1	8	8	1
Natl Guard	3	3	21	21	3
DoD					
Active	623	639	3,470	3,470	657
Res/Gd Total	10	12	239	239	12
DoD Total	633	651	3,709	3,709	669

Intermediate Service Schools

Each of the Services maintains a Command and Staff College. In addition, the Navy is executive agent for the Armed Forces Staff College, a joint institution sponsored by the Joint Chiefs of Staff with students from all Services. While there are differences in approach and curriculum based on the requirements of the parent Service, each of the courses is designed to prepare officers for command and staff duties in all echelons of their parent Services and in joint or allied commands. A relatively small number of officers from each Service attends one of the Command and Staff Colleges of the other Services; a few attend Allied schools at the same level. Attendance at the Intermediate Service Schools is on a selective basis. The following table lists the Command and Staff Colleges and their respective course lengths.

Intermediate Service Schools

Schools	Location	Course Length (Weeks)
Armed Forces Staff College	Norfolk, VA	22
Army Command and General Staff College	Fort Leavenworth, KA	40
College of Naval Command and Staff	Newport, RI	44
Marine Corps Command and Staff College	Quantico, VA	43
Air Command And Staff College	Montgomery, Al	43

Another school categorized as an Intermediate Service School for purposes of this reports is the Defense Systems Management College at Fort Belvoir, Virginia. This is a joint school that conducts a primary 20-week course in management concepts and methods with the major purpose of preparing selected military officers and DoD civilian personnel for assignments in program or project management.

Load data for military personnel attending Intermediate Service Schools is shown in the following table:

Training Inputs, Outputs, Loads, Intermediate Service Schools, FY 1981-83

Service	FY 81	FY 82	FY 83		
Component	Load	Load	Input	Output	Load
Army					
Active	837	843	2,246	2,245	843
Reserve	36	40	532	531	43
Natl Guard	34	33	376	373	29
Navy					
Active	169	184	1,627	1,627	184
Reserve	9	5	115	115	5
USMC					
Active	140	140	191	191	140
Reserve	6	6	150	150	6
Air Force					
Active	473	467	602	602	464
Reserve	16	16	137	137	16
Natl Guard	14	15	122	122	15
DoD					
Active	1,619	1,634	4,666	4,665	1,631
Res/Gd Tot.	115	115	1,431	1,427	114
DoD Total	1,734	1,749	6,098	6,093	1,745

Senior Service Colleges

Each of the Military Departments maintains a Senior Service College, or "War College." In addition, there is the National Defense University, consisting of two joint Senior Service Colleges, The National War College and the Industrial College of the Armed Forces, is attended by students from all four Services. Senior Service College attendance is on a highly selective basis; students are chosen by Service selection boards from among tne most promising officers in the lieutenant colonel/colonel, commander/captain grades.

The common purpose of the Senior Service Colleges is to prepare students for senior command and staff positions at the highest levels in the national security establishment and the allied command structure. The unifying focus is the study of national goals and national security

policy. Each of the Service colleges, while concentrating on the employ-
ment of the parent Service in the defense mission, also includes the
study of the employment of the forces of other Services.

All of the colleges integrate the study of economic, scientific,
political, sociological, and other factors into the consideration of
national security problems. The Industrial College, in its approach to
national security problems, emphasizes the use and management of national
resources. The length of the principal courses at the Senior Service
Colleges is ten months. Most colleges also conduct shorter special-purpose
seminar-type courses, some particularly for Reserve Component officers.
Use of these short courses is greater in the Navy.

Load data for the Senior Service Colleges are shown in the following
table.

Training Inputs, Outputs, Loads, Senior Service Colleges, FY 1981-83

Service Component	FY 81 Load	FY 82 Load	FY 83 Input	FY 83 Output	FY 83 Load
Army					
Active	263	263	529	529	263
Reserve	17	19	181	181	28
Natl Guard	14	14	76	76	15
Navy					
Active	130	130	1,750	1,750	130
Reserve	6	6	192	192	6
USMC					
Active	53	52	65	65	52
Reserve	-	-	-	-	-
Air Force					
Active	242	253	282	284	249
Reserve	9	9	54	54	9
Natl Guard	9	9	54	54	9
DoD					
Active	688	698	2,626	2,628	694
Res/Gd Tot.	55	57	557	557	67
DoD Total	743	755	3,183	3,185	761

Enlisted Leadership Training

The courses included in this category are designed to provide
selected senior enlisted personnel the skills and knowledge needed to
assume the responsibilities of the highest non-commissioned officer
grades. These courses are the culmination of formal enlisted training

and are, for enlisted personnel, analogous to the officer courses dis-
cussed in the preceding sections. In addition to such subjects as
methods of leadership, human relations, discipline and training, and the
administration and employment of military organizations, the senior non-
commissioned officer, in these higher-level schools, is given a broader
perspective of the role and functions of his or her Service

Schools, locations and course lengths are shown below:

Schools	Location	Course Length (Weeks)
Army: Sergeants Major Academy	Fort Bliss, TX	22
Navy: Senior Enlisted Academy	Newport, R.I.	9
Marine Corps: Staff NCO Academy	Quantico, VA	6
Air Force: Senior NCO Academy	Gunter AFB, AL	9

Other enlisted leadership training for more junior noncommissioned
officers is carried in Specialized Skill Training. This includes command-
sponsored NCO academies, for example. This training tends to be more skill
related for specific types of specialized leadership responsibilities.
The senior enlisted leadership training carried in this chapter is more
properly thought of as Professional Development Education in a broader
sense.

All four military services now sponsor a Senior Enlisted Leadership
Academy. The Navy has the newest of the academies; the Navy's Senior
Enlisted Academy at Newport, R.I. was open for 16 entrants in FY 1981.
An enrollment of 208 senior enlisted personnel is planned for FY 1983.

Loads for Enlisted Leadership Training are slightly higher in FY 1983
than in the previous year, as shown in the following table.

Training Inputs, Outputs, Loads, Enlisted Leadership Training, FY 1981-83

Service	FY 81	FY 82	FY 83		
Component	Load	Load	Input	Output	Load
Army					
Active	174	231	718	707	232
Reserve	5	6	17	17	6
Natl Guard	7	8	26	26	9
Navy					
Active	3	22	208	208	35
USMC					
Active	80	95	792	753	95
Reserve	-	-	-	-	-
Air Force					
Active	173	188	1,192	1,192	188
Reserve	2	2	15	15	2
Natl Guard	5	5	30	30	5
DoD					
Active	430	536	2,910	2,860	550
Res/Gd Total	19	21	88	88	22
DoD Total	449	557	2,998	2,948	572

Graduate Education Fully Funded, Full Time

The Department of Defense needs military officers with specialized advanced knowledge, at a level attainable only through graduate education, to perform effectively in certain military jobs. The purpose of the graduate education program in each of the Services is to provide graduate-level education in required disciplines to the numbers of officers required to maintain an inventory of officers qualified to fill these jobs. Under the program described in this section, military officers undergo graduate education on a full-time, fully-funded basis. An active service payback obligation of three years of service for each year of schooling is required of all officers entering the program, up to a maximum set by the Services. (The Funded Legal Education program established by 10 USC 2004 requires an active service commitment of two-for-one.)

The following table displays training load data for these graduate education programs. All participants are members of the Active Forces.

Training Inputs, Outputs, Loads, Graduate Education,
Fully Funded, Full Time, FY 1981-83

Service Component	FY 81 Load	FY 82 Load	FY 83		
			Input	Output	Load
Army	903	903	724	724	903
Navy Active	836	1,064	705	562	1,088
USMC Active	121	121	78	80	124
Air Force Active	864	985	825	663	1,100
DoD Total	2,724	3,073	2,332	2,029	3,215

Officer graduate students attend either a civilian educational institution or one of the two Service institutions, the Naval Postgraduate School or the Air Force Institute of Technology, depending upon where the required education can best be obtained. Curricula in the two service institutions emphasize military-unique courses, such as in logistics management or intelligence operations, and military applications in all other courses. While these schools are primarily used by the parent Services (including Marine Corps use of the Naval Postgraduate School), they also educate some students from other Services. The numbers of Navy and Air Force officers enrolled in advanced degree and short course programs reflects a five-year plan developed by the Services to improve the advanced technological and engineering capabilities of the career force. The plan incorporates greater utilization of the Naval Postgraduate School and the Air Force Institute of Technology. The following table displays student loads for these two schools.

Graduate Education Loads at Service Institutions

	Naval Postgraduate School			Air Force Institute of Technology		
	FY 81 Load	FY 82 Load	FY 83 Load	FY 81 Load	FY 82 Load	FY 83 Load
Army	129	129	129	15	15	15
Navy	780	880	884	10	10	10
Marine Corps	90	94	98	3	3	4
Air Force	50	55	55	456	485	485
Total DoD	1,049	1,158	1,166	484	513	514

Requirements for graduate-educated officers depend upon the number of "validated billets", that is, military positions that have been determined to require an incumbent with graduate-level education in the applicable academic discipline. Each Service has established a system, ordinarily culminating in a board of senior officials in the Service headquarters, which examines the duty prerequisites for each billet nominated for validation and determines if the job does, in fact, require an officer with an advanced degree. (Requirements for included graduate legal education are determined separately; these programs were authorized in 1973 by Public Law 93-155.)

Other Full Time Education Programs

In addition to the Professional Development Education programs already described there is a variety of other full time programs tailored to meet the particular needs of the Services. (Health Professions Education programs are discussed in a separate section at the end of this chapter).

Several programs have been designed to permit selected individuals an opportunity to work toward associate, baccalaureate or advanced degrees. These programs benefit the Services in several important ways: they increase the technical qualifications of the individuals in the program; they improve the general educational levels of Service personnel; and they provide career retention and recruiting incentives to outstanding personnel. In addition, to the extent possible, personnel in advanced education programs are later used to satisfy validated requirements and hence reduce the required student load in graduate education for validated billets.

The degree-completion programs are managed by the individual Military Departments and each has its own selection criteria. However, in general a person is not selected for a program unless the education will enhance his or her professional development and be of use to the Military Department. All of the programs require a payback from the individual.

Short-course training provides the Military Services with needed skills in a wide variety of scientific, administrative and other fields. These programs are selected to train personnel in job-oriented skills that can best be acquired through abbreviated courses. Accounting, traffic management and aviation safety are examples of skills involved. Some of this included training is conducted in DoD schools, the remainder in civilian institutions.

The following table displays load data for this category;

Training Inputs, Outputs, Loads, Other Full-Time Education Programs, FY 1981-83

Service Component	FY 81 Load	FY 82 Load	FY 83 Input	FY 83 Output	FY 83 Load
Army					
Active	273	325	1,392	1,329	344
Navy					
Active	386	440	1,902	1,971	447
Reserve	1	1	6	6	1
USMC					
Active	136	129	124	95	130
Air Force					
Active	604	783	9,104	8,971	953
Reserve	19	27	671	671	29
Natl Guard	9	9	240	240	11
DoD					
Active	1,399	1,677	12,522	12,366	1,874
Res/Gd Tot	29	37	917	917	41
DoD Total	1,428	1,714	13,439	13,283	1,915

Health Professions Education

This subcategory is made up of a wide variety of courses for personnel of all health professions -- physicians, dentists, nurses, medical administrators, etc. The majority of the courses offered are conducted in military facilities, and vary in length from a few days to a full year. Some training is conducted at civilian medical institutions, including, in the case of the Army, some advanced degree programs. The purpose of Health Professionals Education is to expand the skills of

military medical personnel and to provide them timely information on the latest techniques in their fields. Educational programs connected with the acquisition of health professionals is carried in this report under Officer Acquisition Training. In this category, the Navy provides long-term training. The Army and Air Force rely on short courses.

The following table shows load data for Health Professions Education.

Training Inputs, Outputs, Loads, Health Professions Education, FY 1981-83

Service Component	FY 80 Load	FY 81 Load	FY 82 Input	FY 82 Output	FY 82 Load
Army					
Active	164	164	820	820	164
Navy					
Active	162	164	84	85	167
Air Force					
Active	429	484	2,171	2,171	456
DoD Total	755	812	3,075	3,076	787

VIII

RESERVE COMPONENTS TRAINING

In addition to training members of the active forces, the Service training establishments also train members of the Reserve Components. Reserve Component training, as part of individual training and education, involves Reservists and Guardsmen who are on active duty for formal school training. It does not include training of Reserve Component members provided under the following circumstances:

- Training received while members are on extended active duty (this training is included in active force aggregates);

- Training conducted by the Reserve Components themselves;

- Training received on annual active duty, except if provided through courses conducted by the active training establishment;

- Any training received while the individual is not in an active military status; as a minor exception, some Reserve and Guard technicians attend military schools in Civil Service status.

The purpose of this chapter is to summarize the amount and types of training of Reservists and Guardsmen which are conducted by the active training establishments. The training loads discussed in this chapter are included within the loads attributed to the various Reserve Components in the previous chapters.

Training of members of the Reserve Components will comprise 16 percent of all individual training and education in FY 1983, or 2 percentage points more than required in FY82. The change reflects DoD's overall manpower policy of increasing the peacetime reserve strengths relative to the active force strength in FY 1983. The Reserve training loads and workloads will increase accordingly. Training loads for each of the Reserve Components for each of the major categories of training for FY 1983 are shown in the following table.

Training Loads, Reserve Components, FY 1983a/

Component	Recruit	One-Station Unit Training	Officer Acquisition	Specialized Skill	Flight	Professional Development	Total
Army Reserve	4,529	2,783	7	7,086	97	77	14,579
Army National Guard	3,835	8,285	44	5,660	175	53	18,052
Naval Reserve	310	-	34	644	-	12	1,000
USMC Reserve	1,846	-	293	818	-	14	2,971
Air Force Reserve	397	-	29	779	89	57	1,351
Air National Guard	804	-	-	1,209	272	43	2,328
Total, Reserve Components	11,172	10,789	408	16,196	633	256	40,281

a/ Loads in this table are a summary of Reserve Components loads displayed previously in this report, and are not additive to them.

The following table summarizes load data for entry-level Reserve Component basic qualification training for FY 1983.

Enlisted Entry-Level Training, Reserve Components, FY 1983

	Reserve		
	Inputs	Outputs	Loads
Recruit Training	74,523	69,406	11,721
Initial Skill Training	71,768	66,170	11,660
One-Station Unit Training	45,463	72,927	11,068
Totals	191,765	208,503	33,449

Reserve Component training will account for an increasing share of all programmed Reserve and Active Training in FY 1983. Recruit Training for the Reserves and Guard accounted for 17 percent of all DoD Recruit training in FY 1982 but will account for 21 percent in FY 1983. Reserve Component Training accounts for 14 percent of all Initial Skill Training (Enlisted) and 38 percent of all Army One-Station Unit Training programmed in the Department of Defense for FY 1983.

Although entry-level training for enlisted personnel makes up 83 percent of total Reserve Component training loads, Reserve and Guard officers and enlisted personnel beyond the initial entry stage also are trained by the active establishment. The majority of this training is at the more advanced levels of Specialized Skill Training, and fills the same demands for skill progression or new equipment training that these types of training provide for active members. Reserve Component participation in Flight Training is relatively minor, since most aviator requirements in Reserve Component units are filled by experienced aviators who join after extended service in the active components.

To accommodate an increased force structure in the Reserve Components, more professional development training is required for mid-career officers and enlisted personnel in the Reserves and National Guard. However, Professional Development Education still accounts for only about 5 percent of total DoD officer training at the basic, intermediate and senior levels and about 4 percent of Enlisted Leadership Training in FY 1983.

The great majority of training of Reservists and Guardsmen is in Recruit and Specialized Skill Training and, for the two Army Components, One-Station Unit Training. Within Specialized Skill Training, most of this training is in Initial Skill Training for enlisted personnel. The combination of Recruit and Initial Skill Training or One-Station Unit Training for enlisted personnel, including Reservists and Guardsmen, provides them basic qualification training that transforms the untrained civilian into a servicemember with a useable skill.

Enlisted members of the Reserve Components without prior service receive the same basic qualification training as active service members. Each non-prior service enlistee in the Reserve Components undergoes, as a minimum, twelve weeks of active duty training. This is carried out by sending the new recruit through Recruit Training and on through Initial Skill Training. Alternatively, many Army Guardsmen and Reservists are provided similar training in certain skills through One-Station Unit Training. Trainees who graduate from Recruit Training proceed to Initial Skill Training in their occupational specialty. This may consist of a course in a Service school or Advanced Individual Training at an Army training center. If a course in the proper skill is not available, the trainee may be assigned to on-the-job training in an active duty for training status. The actual length of active-duty training, in comparison with the statutory twelve weeks minimum, varies from twelve weeks to twelve months, depending on the occupational specialities involved.

Reserve Component personnel participate in a variety of non-resident courses sponsored by Service schools; Reservists and Guardsmen make use of these training opportunities on the same basis as active personnel. For many Reserve and Guard officers, consideration for promotion depends upon successful participation in Professional Development Education programs.

Beyond the training covered in the training loads, the active training establishment makes other valuable contributions to the state of training of the Reserve Components. Perhaps the most important is realized through former active members who join the Reserve Components after having been trained on active duty. The Reserve Components also receive graduates of Army and Air Force ROTC who are not called to extended active duty.

In summary, training of members of the Reserve Components forms a significant portion of the workload of the active training establishment. Particularly at the entry level, this training is indispensable to the readiness of individuals and organizations of the Reserve Components and to the realization of the Total Force policy.

TRAINING MANPOWER

General Description

Manpower associated with the individual training mission in the Department of Defense can be divided into two parts: first, the trainees and students being trained, and, second, the military and civilian manpower that conducts and supports the training. These two classes of manpower are discussed and explained in this chapter.

Trainees and Students

Manpower undergoing training in the Defense training establishment is defined and quantified in three different ways, each of which serves a somewhat different purpose with regard to manpower accounting and resource allocation.

1. <u>Training Loads</u>. These are the "military training student loads" which are detailed in Chapters III through VII of this report -- the average number of military trainees, students, and cadets of each Service and component in training during a given fiscal year, which is subject to annual congressional authorization. Training loads include all military manpower of a given Service or component who are undergoing individual training, regardless of whether the training is conducted by the parent Service, one of the other Services, a DoD school, or by an agency or institution outside the Department of Defense, such as a civilian college or university. Training loads also include all military personnel in training regardless of their assignment status. Some trainees and students are assigned to the training activity; others are attending training in a temporary duty (TDY) or temporary additional duty (TAD) status while remaining assigned to their parent units; still others are attending while in transit from one permanent assignment to another.

Since training loads are an annual average and most courses are much shorter than a year in length, the actual number of students and trainees who enter training, and the number who graduate, is considerably greater than the training load. For example, the total programmed training load for Recruit Training in FY 1983 is less than 56,059, yet over 363,000 persons are to enter Recruit Training and about 334,000 are to graduate.

2. <u>Training Workloads</u>. The total number of trainees and students undergoing training within DoD includes some trainees and students of foreign nations, DoD civilian employees, and members of other departments and agencies of the U.S. Government, notably the Coast Guard. In addition, many U.S. military students and trainees are trained by a Service

other than their own. Consequently, the average number of students being trained by a given Service, or its training workload, usually differs from its training load. For example, the Marine Corps has a programmed Flight Training load of 680 in FY 1983; however, since the training is conducted by other Services, its Flight Training workload is zero. On the other hand, because the Navy trains many personnel from other Services and Coast Guard and foreign students as well as most of its own students, the Navy's Specialized Skill Training workload is higher than its training load.

Since training workload, in conjunction with other applicable considerations, is the major determinant of the resources (manpower, funds, materiel and facilities) required to conduct training, it, rather than training load, is appropriately used in considering the allocation of resources to a Service or a training activity. Programmed training workloads for each of the Services in FY 1983 are displayed in the following table.

Training Workloads, FY 1983
(Thousands)

Category	Army	Navy	Marine Corps	Air Force	DoD
Recruit	19.0	16.3	11.4	10.0	56.7
Officer Acquisition	4.8	6.0	.6	~~6.1~~ 5.5	17.5
Specialized Skill	59.8	51.9	6.2	29.5	147.4
Flight	1.9	2.6	-	4.0	8.5
Professional Development Education	1.8	2.8	.4	3.0	8.0
One-Station Unit Training	29.3	-	-	-	29.3
Total	116.7	79.7	18.6	52.~~70~~	267.~~5~~0

Note: Detail may not add due to rounding.

3. Students, Trainees, and Cadets. In the Individuals accounts of the Defense Manpower Requirements Report, military manpower is included for each Service as "Trainees and Students" and (except for the Marine Corps) "Cadets". Conceptually, this manpower represents the number of military trainees, students, cadets and midshipmen programmed to be assigned (PCS as opposed to TDY/TAD) for training on the last day of a given fiscal year. Student, trainee, and cadet manpower is similar to training load in that both represent military members of the reporting Service in training status. Nevertheless, there are substantial differences in the way the amount of manpower in these two manpower aggregations is calculated, with the result that the totals are seldom the same. The major reasons for these differences are:

-    Training loads are manyears in training status, as has been mentioned, whereas trainees, students, and cadets are end-strengths, or

numbers in training on the last day of the fiscal year. Trainee, student, and cadet numbers are thus affected by the seasonality of enlistment patterns, described in Chapter III, while the element of seasonality is evened out in training loads.

- Training loads include students attending training in a temporary duty (TDY or TAD) status as well as those attending in a PCS status. In the Defense Manpower Requirements Report TDY and TAD students are carried in the categories of their parent units. In addition, some individuals attending training while in transit from one permanent assignment to another are included in training loads but are classified as "Transients" in the Defense Manpower Requirements Report.

Training loads are a more accurate measure of the amount of training that is needed to meet military requirements than are the categorizations "trainees," "students," and "cadets."

Manpower in Support of Training

Military and civilian manpower is required to accomplish the individual training mission. This manpower conducts and supports instruction, operates training bases and facilities, maintains training equipment, produces training aids, provides personal and community services to students, trainees, and other military members, plans and manages training, and performs all the other tasks necessary to conduct and support individual training.

ROTC students are not military members in an active duty status and are not included in military manpower training loads. To be consistent with this treatment of ROTC students, manpower supporting ROTC programs is not included in the following manpower tables.

The following tables sum up manpower in support of training by the general functions Conduct of Individual Training, Training Base Operating Support, and Management Headquarters. The function Conduct of Individual Training includes the following types of manpower: instructors, instructional support, school/training center staffs, student supervisors and direct training support such as training aids and literature, audiovisual resources, and instructional systems development.

DoD Manpower in Support of Training,
Conduct of Individual Training Function
(End Strengths, Thousands)

	FY 81		FY 82		FY 83	
	Military	Civilian	Military	Civilian	Military	Civilian
Army	32.0	7.6	32.5	7.7	32.8	7.9
Navy	26.2	3.3	28.2	3.4	29.2	3.2
Marine Corps	10.1	.1	10.6	.1	11.0	.1
Air Force	19.0	5.1	19.2	5.2	20.8	5.2
DoD	87.9	16.4	91.3	16.7	93.8	16.4

DoD Manpower in Support of Training,
Base Operating Support Function,
(End Strengths, Thousands)

	FY 81		FY 82		FY 83	
	Military	Civilian	Military	Civilian	Military	Civilian
Army	20.9	27.5	17.4	26.8	16.9	24.6
Navy	6.8	7.4	6.7	7.1	6.6	6.5
Marine Corps	3.8	1.9	3.3	2.0	3.3	2.0
Air Force	11.6	9.6	11.2	9.2	11.2	7.3
DoD	42.8	46.2	38.2	44.9	38.0	40.5

DoD Manpower in Support of Training, Management Headquarters Function
FY 1981-1983
(End Strengths, Thousands)

	FY 81		FY 82		FY 83	
	Military	Civilian	Military	Civilian	Military	Civilian
Army	0.6	0.8	0.7	0.9	0.7	0.9
Navy	0.3	0.5	0.3	0.5	0.3	0.5
Marine Corps	*	-	*	-	*	-
Air Force	0.9	0.5	0.9	0.4	0.9	0.4
DoD	1.8	1.8	1.9	1.8	1.9	1.9

*Less than 50.

DoD Manpower in Support of Training, All Functions, FY81-83
(End Strengths, Thousands)

	FY 81		FY 82		FY 83	
	Military	Civilian	Military	Civilian	Military	Civilian
Army	53.5	35.8	50.6	35.3	50.4	33.4
Navy	33.3	11.1	35.2	11.0	36.1	10.2
Marine Corps	14.0	2.0	13.9	2.0	14.3	2.1
Air Force	31.4	15.2	31.3	14.8	32.9	13.0
DoD	132.2	64.2	131.0	63.2	133.7	58.7

The Service estimates of training attributable manpower include staff and
support manpower that do not contribute to the production of student
output and loads but are reported as training resources in the Five Year
Defense Program (FYDP) because they belong to organizations with a primary
mission of training. The majority of the non-training attributable manpower
is for Base Operating Support (BOS) given to non-training tenant activities
at training installations.

Manpower estimates in this and previous MMTR report are based on DoD's
Five Year Defense Program (FYDP). The MMTR reports for 1979 and earlier
years used adjusted FYDP data to reflect Service estimates on the level
of manpower not attributable to training. In the FY80 report, that
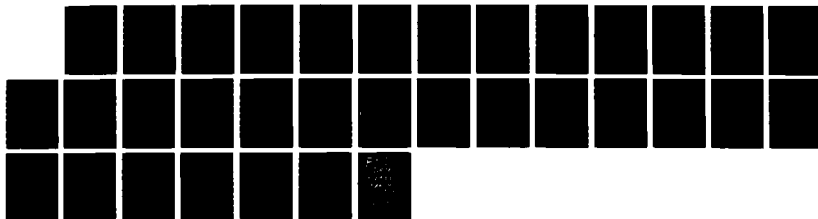practice was discontinued in order to provide information in a more
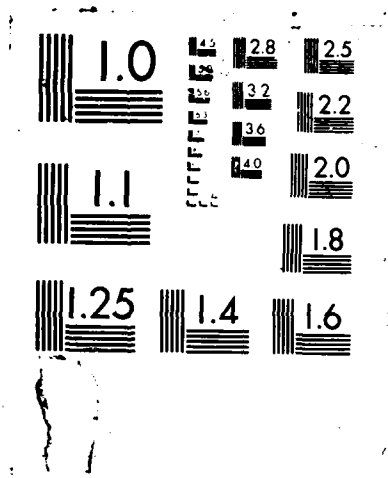
consistent with the President's Budget. This current FY83 report con-
tinues with the practice of reporting data consistent with the President's
FY83 budget.

The following tables show changes in total military and civilian
manpower in support of training between FY77 and 1983. Manpower for
each year is shown by the functions Conduct of Individual Training, Base
Operating Support, and Management Headquarters.

Trends, Manpower in Support of Training,
DoD Total, By General Function, FY 1977-1983
(End Strengths, Thousands)

| | 1977 | | | FY 81 | | | FY 83 | | | Percent Change TOTAL Manpower: | |
	Mil	Civ	TOT	Mil	Civ	TOT	Mil	Civ	TOT	FY 77-83	FY 81-83
Conduct of Individual Training	108	22	130	88	16	104	94	16	110	-15%	+ 6%
Base Operating Support	36	45	81	43	46	89	38	41	79	- 3%	- 11%
Management Headquarters	2	2	4	2	2	4	2	2	4	-	-
TOTAL	145	70	215	132	64	196	134	59	192	-11%	- 2%

Note: Detail affected by rounding

As the table shows, the total military and civilian manpower in support
of training is fairly stable between FY 1981 and 1983. However, within
the total, there has been a tradeoff. The increase of 6000 positions in
manpower conducting individual training has been offset by a 6,000 man-
power reduction in Base Operating Support.

As shown in the following tables, training workloads are about 9%
percent higher in FY 1983 than in FY 1981; considered with the unchanged
level of total manpower in support of training, this implies a notable
increase in manpower productivity.

Trends, Training Workloads, FY 1977-83
(Thousands)

	FY 77	FY 81	FY 82	FY 83	Percent Change FY 77-83	FY 81-83
Army	99	100	108	117	+18%	+17%
Navy	67	79	77	80	+20%	+ 1%
Marine Corps	21	18	18	19	-10%	+ 6%
Air Force	54	49	49	53 52	+ 2%	+ 8%
DoD	238	246	252	267	+12%	+ 9%

Note: Detail affected by rounding.

Trends, Training Manpower and Training Workloads, FY 1977-83
(Thousands)

	FY 77	FY 81	FY 82	FY 83	Percent Change FY 77-83	Percent Change FY 81-83
Manpower in Support of Training	215	196	194	192	- 11%	- 2%
Training Workloads	238				+ 12%	+ 9%

Training Manpower Detailed by Service and Type of Training

As was noted early in this chapter, training workloads, in conjunction with other factors, are the determinants of the resources required to conduct training. The workload/resource relationship is not a simple one, but depends upon the nature of training and training support involved. For example, Flight Training normally requires a great deal of support manpower for aircraft maintenance; weapons training requires close instructor supervision for safety considerations.

Training Manpower by Service and Type of Training, FY 1983
(Thousands)

Training Activity

	Army Mil	Army Civ	Navy Mil	Navy Civ	Marine Corps Mil	Marine Corps Civ	Air Force Mil	Air Force Civ	DoD Mil	DoD Civ
Recruit	3.9	0.1	1.6	*	2.4	*	.8	*	8.7	0.1
Officer Acquisition	1.0	1.0	1.0	.8	2.8	-	1.2	0.8	5.2	2.6
Specialized Skill	15.6	4.6	16.3	0.8	5.0	-	9.5	2.3	46.4	7.7
Flight	1.5	.5	9.5	0.7	0.4	-	7.0	.8	18.4	2.0
Professional Development	0.6	0.7	0.4	0.7	0.2	*	1.0	0.5	2.2	1.9
One-Station Unit Training	8.4	0.4							8.4	0.4
Medical Training	1.8	0.6	0.4	*	-	-	0.6	0.1	2.8	0.7
Direct Training Support	6.5	3.7	*	0.2	*	-	0.7	0.7	7.4	4.6
Base Operating Support	10.4	21.0	6.6	6.5	3.3	2.0	11.2	7.3	31.5	36.8
Management Headquarters	0.7	0.8	0.3	0.5	*	-	0.9	0.5	1.9	1.8
TOTAL[1]	50.4	33.3	36.1	10.2	14.3	2.1	32.9	13.0	133.7	58.7

1/ The Service estimates of training attributable manpower include staff and support manpower that do not contribute to the production of student output and loads but are reported as training resources in the Five Year Defense Plan (FYDP) because they belong to larger organizations with a primary training mission.

*Less than 50

Manpower data in the six categories of training (e.g. Recruit through One-Station Unit Training) includes instructors, school/training center staffs and student supervisors. Direct training support includes such tasks as training aids and literature, audiovisual resources and instructional systems development.

X

TRAINING MANAGEMENT AND FUNDING

General Description

Chapters III through VII of this report describe and explain the military training student loads requested to be authorized for each military component. These student loads represent patterns and levels of training effort which require manpower and other resources. The purpose of this chapter is to describe and explain the resources (other than manpower, which is discussed in Chapter IX), funding and costs associated with the conduct of individual training.

In considering training resources, it is important to distinguish between the training <u>loads</u> required by a Service but conducted in part outside the Service, and the <u>workloads</u> representing training conducted by the Service. As discussed in the previous chapter, the workloads, which represent training conducted by a Service, are the basis for resource requirements (manpower, materiel, facilities, and funds) needed to conduct and support the training that the Service executes.

Management of Individual Training

Detailed management of individual training is carried out by the four Military Services. Each of the Services, except the Marine Corps, has a training commander immediately subordinate to the Service chief who is responsible for most of the individual training conducted within that Service. Some training is managed directly by the Service head-quarters. However, the most prevalent pattern of control is through a training command headquarters that manages most Service military schools, training centers, and other training facilities.

Staff Responsibilities

Within the Office of the Secretary of Defense, staff responsibility for individual training and education policies rests with the Assistant Secretary of Defense (Manpower, Reserve Affairs and Logistics), with a strong influence over the allocation and use of resources being exercised by the Assistant Secretary of Defense (Comptroller). The staffs of these two offices work closely together in the staff supervision of DoD individual training and education. Other OSD offices, such as Health Affairs, Intelligence, and Research and Engineering, participate as appropriate. The OSD role is generally one of policy formulation, allocation of resources, overview of Service training programs, and coordination among the Services.

Within each Service headquarters, a principal staff officer has responsibility for individual training. Other staff members may have primary responsibility for certain types of training, as, for example, a Service Surgeon General for professional medical training. Other staff members have collateral responsibilities for the allocation of manpower and funds to the training function.

Primary responsibility on the Army staff for individual training rests with the Deputy Chief of Staff for Operations and his subordinate, the Director of Training. Within the Navy, the principal staff officer is the Deputy Chief of Naval Operations for Manpower, Personnel, and Training. Headquarters, Marine Corps, manages training through the Deputy Chief of Staff for Operations and Training and his subordinate, the Director of Training. Commanders of the separate major subordinate training activities report directly to the Commandant of the Marine Corps, dealing with the headquarters training staff. Within the Air Force, the Director of Personnel Programs, under the Deputy Chief of Staff for Manpower and Personnel, has staff responsibility for individual training.

Training Commands

The Army, Navy and Air Force each has a command headquarters that manages most of the individual training conducted by that Service.

The Army's principal training command headquarters is Headquarters, Training and Doctrine Command (TRADOC), located at Fort Monroe, Virginia. TRADOC's control is exercised through training installation and school commanders throughout the United States.

The Chief of Naval Education and Training, headquartered at Pensacola, Florida, exercises control, through subordinate functional commanders, of education and training conducted in training centers, schools and programs throughout the Navy.

Headquarters, Air Training Command, at Randolph Air Force Base, Texas, directly controls individual training centers and units.

The Service-wide training commands are not responsible for all individual training and education conducted. As already noted, the Surgeons General are responsible for most health professional and medical technical training. Other examples include the Service Academies, which are under the direct supervision of the respective Service Chiefs.

Training Facilities

Appendix B lists the principal individual training facilities of the four Services for each of the major categories of training. Projected average training workloads and training support manpower for FY 1983 are also shown for each facility listed.

Training Funding and Costs

The training costs addressed in this section include funding in the President's Budget for Fiscal Year 1983 requested for individual military training and education. These costs differ from life-cycle costs, which would take account of retirement and other costs that are not funded during FY 1983. Depreciation costs of training facilities and equipment are not included, although training investment costs estimated for FY 1983, such as procurement and construction costs, are included. The report uses the data in the DoD's Five Year Defense Program (FYDP) as the basis for all estimates of the manpower and funds devoted to training and education.

The costs in this chapter include funding for military pay and allowances for both PCS and TDY/TAD students, pay and allowances of military and civilian personnel in support of training, training related PCS costs, base operating costs in support of training, training-related operations and maintenance costs (including civilian support personnel pay and allowances), training investment costs for construction and procurement, and overhead costs for training administration and command. Certain costs for activities that are organic parts of training organizations but that support non-training missions (such as Base Operating Support for non-training activities on training bases) are also included to provide compeability with the Five Year Defense Program and the President's Budget.

For a given Service, the requirement for funding for training arises from two factors: first, the need to fund the pay and allowances of its own military training student loads, regardless of where or by whom the students are trained; and, second, the need to provide for the level of individual training and education effort necessary to meet the Service's commitments to accomplish training for its own and other students.

For comparability, the funding requests associated with ROTC and other non-load training programs are deleted from the following table. Hence the table reports FY 1983 funding estimates related to the requested FY 1983 training loads.

Special caution should be exercised in using these costs for comparisons among Services. Differences in missions among the Services, differing operating and training conditions, and differences in the mix of component Service training programs, degrade the soundness of comparisons based on aggregated data such as these.

Funding of Individual Training
by Service and Type of Training, FY 1983
($ Millions)

	Army	Navy	USMC	Air Force	DoD
Recruit	$165.2	$330.2	$179.7	$196.2	$871.3
Officer Acquisition	99.4	122.8	16.6	136.7	375.6
Specialized Skill	855.2	1,044.0	274.9	708.4	2,882.5
Flight	353.5	706.2	35.0	730.6	1,825.3
Professional Development Education	157.2	84.6	25.4	159.7	426.9
One-Station Unit Training	332.0	-	-	-	332.0
Medical Training	198.8	102.3	-	130.0	431.0
BOS and Direct Training Support	1,293.8	615.1	134.1	771.4	2,814.4
Management Headquarters	48.0	29.4	0.4	39.7	117.5
PCS Cost for Training	339.0	177.9	114.8	86.3	718.0
TDY and Reserve Component Pay and Allowances	893.2	160.4	51.8	273.7	1,379.1
Total	$5,144.6	$3,464.3	$891.5	$3,270.2	$12,770.5

Note: May not add due to rounding.

Student pay and allowance totals for a Service's requested military student training load have been added to pay and allowances for the staff and support manpower for each Service's workload. This can produce significant distortions in the use of these aggregates for assessing training efficiency (e.g., in the Marine Corps, where significant loads are trained by other Services).

Appendix C shows a distribution of funds in the table above by appropriation.

The preceding table includes substantial segments of cost which are not normally sensitive to significant shifts (say up to fifteen percent) in training load. These include certain command, base, facility, and equipment costs. These "fixed" costs need to be considered in program and budget adjustments because, within a reasonable range of output, they remain approximately the same and do not vary as the training load varies. They change, instead, with decisions to change the manner of accomplishing training, most often through training investment decisions or base realignments.

It should be noted that there are often substantial year-to-year fluctuations in funding for fixed costs. These costs are termed "fixed", not because they do not change from year to year, but because their changes characteristically are not "variable" with changes in workloads

from period to period. Funding of these costs reflects significant
increases, however, for years in which there are major procurements of,
for example, simulators, aircraft, or construction in support of training.

Thus, the proportion of total funding requested to support training
differs significantly among the Services and among categories of training;
the proportion in the short run, however, is seldom less than one-third
of total cost. This has important implications for the extent of funding
adjustments appropriate to changes in the level of activity or size of a
training program. Other things equal, if training funds are to be
adequate for the needs of a reduced program, they must be reduced by a
smaller proportion than the program loads in order to account for fixed
costs. By the same token, program increases, within reasonable capacity
limits, may not require a proportional increase in total program funding.

Training costs are affected by inflation, both because of price
rises for goods and services and because of the pay of the military and
civilian personnel involved as students, instructors, and support. Some
training program costs are strongly affected, in addition, by energy
cost increases, especially in flight training.

TRAINING IMPROVEMENTS

General Description

The purpose of this chapter is to discuss some of the actions being taken by the Department of Defense to make individual training more effective in producing qualified graduates or more efficient in its use of resources.

Initial Entry Training for Army Recruits Has been Extended

Detailed analyses have shown the necessity for initial recruit training in the Army to improve soldier performance and battlefield survival skills. With the approval of DoD, the Army has increased Initial Entry Training that is, Recruit Training and OSUT, by one week and extended each day of instruction by an hour for a total of 97 additional hours of recruit training. The lengthening of each class day went into effect in FY 1981, implementation of the added week occurred in FY 1982, with full implementation in effect in FY 1983.

The more demanding program of instruction developed by the Army specifies new tasks, provides for increased repetitive instruction, toughens physical standards, and establishes a more comprehensive end-of-course examination of each soldier's accomplishments. The expanded training is expected to improve the development of well-trained, motivated and disciplined soldiers.

Initial Skill Training for the Air Force Enlisted Personnel will be Extended

Initial Skill Training for enlisted Air Force personnel will be extended by one week to allow for more thorough instruction in technical training. The additional training will be initiated in FY 1982 and fully implemented in FY 1983.

New Joint Training for Euro NATO Pilots

Euro NATO Joint Jet Pilot Training (ENJJPT) is a cooperative under-graduate pilot and pilot instructor training program that has been in development since 1973. This program began operation in October 1981 at Sheppard Air Force Base, Texas. ENJJPT is one of the most significant training projects to be undertaken by Allies during peacetime. The nations involved in the program are Belgium, Canada, Denmark, Germany, Greece, Italy, the Netherlands, Norway, Portugal, Turkey, the United Kingdom and the United States. ENJJPT is based on the principles of proportionate sharing of program costs and proportionate instructor pilot and staff manning. By FY 1987, the program is expected to produce slightly over 300 undergraduate pilots annually. The program will not only allow Allied nations to gain better-trained pilots than they would be able to train themselves at equivalent cost; it will also improve NATO's defense capacity by laying a foundation for

close and effective cooperation among Allied Air Forces. ENJJPT, because of its operational nature, is located in major force program (MFP-10), Support of Other Nations instead of MFP-8, Training and Education.

Interservice and Joint Training

Interservice training is training performed by one Service for one or more of the other Services; joint training is that conducted in a school with a multi-Service faculty, usually operating under a Defense-wide charter. The distinction is not important for the purpose of this report, since both types of training act to lessen duplication of training among the Services and to make better use of resources. "Joint training" will therefore be used in this report to describe all cooperative training arrangements among the Services.

Essentially, each Service historically was responsible for training its own members to satisfy its own requirements. To carry out this responsibility, each Service developed and maintained training bases, activities and programs to meet its own requirements. With some exception: little emphasis was placed on the potential for structuring training systems that are usable by other Services. The major exception has been Navy training of Marines, particularly in Flight Training and other aviation-related skills. Only relatively recently have systematic efforts been undertaken to discover and exploit opportunitied for joint training.

Advantages and Limitations of Joint Training.
Significant efficiencies in facilities, staffs, and support establishments, and in operating costs, may be realized by reducing the total number of training activities and combining them into fewer and larger organizations. Another advantage of consolidation is better utilization of equipment and systems required to support courses of instruction. Joint training also stimulates the interchange of new training ideas and methods.

With regard to the practical limitations to the use of joint training, it is preferable and cost effective for each Service to provide the first phase of training to its own new members in order to orient and motivate them to the unique roles and missions of that Service and to inculcate the Service's standards, customs, and traditions. This is accomplished in Recruit Training and Officer Acquisition Training. For practical purposes, then, possibilities for joint training are limited to Specialized Skill Training, Flight Training and Professional Development Education; to a considerable degree, the uniqueness of Service roles and missions are also a limiting factor in these types of training.

Beyond this consideration, another limitation to the extension of joint training is that Service training facilities are sized, in many cases, to accommodate only their own students, and consolidating courses or schools may require additional facilities. Other limitations are differing skill requirements among the Services, the diversity of equipment used by the Services, possible excessive travel costs if interservice

facilities are not economically located for joint use, and the possibility that a joint training center would not meet Service needs in the event of mobilization for some particular reason.

The general criteria used to determine what training will be conducted jointly are that joint training should not lead to unacceptable loss of training quality or failure to meet valid requirements of the participating Services; that it should not require a capital investment in either facilities or equipment, or other one-time costs, that cannot be amortized over a reasonable period of time; and that the courses under consideration should have sufficient commonality to allow for common-core training or enough common equipment utilization to produce savings.

Mechanisms for Increasing Joint Training. The primary mechanism for increasing joint training within DoD is the Interservice Training Review Organization (ITRO), directed by the training chiefs of the four Services and comprised of interservice committees and working groups. The committees and working groups perform the detailed analysis which leads to decisions on the feasibility of consolidation or other cooperative arrangements among the Services.

Joint Training in FY 1983. The following table shows, for each Service (active and Reserve Components combined), the amount of training it expects to have conducted by one of the other three Services or DoD schools in FY 1983.

Loads Trained by Other Services or in DoD Schools, FY 1983
(Active and Reserve Component, Thousands)

	Trained By Other Service or DoD Schools	Total Parent Service Loads	Percent Trained By Other Services or DoD Schools
Specialized Skill Training			
Army	1.4	53.5	3%
Navy	0.7	42.0	2%
Marine Corps	4.0	10.0	40%
Air Force	1.6	28.3	6%
DoD	7.7	133.3	6%
Flight Training			
Army	0.0	1.6	0.0
Navy	0.1	1.8	6%
Marine Corps	0.6	0.6	100%
Air Force	0.1	3.6	3%
DoD	0.8	7.6	11%
Professional Development Education			
Army	1.2	2.7	46%
Navy	0.4	2.1	19%
Marine Corps	0.3	0.7	47%
Air Force	1.7	4.0	59%
DoD	3.6	9.5	38%

The figures above do not include the members of the host Service who are being trained in the same courses with members of other Services. For example, the figures for Specialized Skill Training include Marines being trained as tank crewmen by the Army but not the much larger number of Army trainees in the same course.

The following table lists some of the major skill areas or courses that are conducted as joint training.

SELECTED MAJOR COURSES/SKILL AREAS TRAINED IN OTHER SERVICES

Sponsoring Service	Major Interservice Course/ Skill Areas	Other Participating Services
Army	Construction Equipment Operator	Marine Corps Air Force
Army	Airborne	Navy Marine Corps Air Force
Army	Artillery	Marine Corps
Army	Armor	Marine Corps
Army	Explosive Ordnance Disposal	Navy Air Force
Army	Medical Lab Technician	Navy
Army	Redeye Missile	Marine Corps
Army	Satellite Communication Fundamentals	Navy Air Force Marine Corps
Army	Tracked Vehicle Repair	Marine Corps
Army	Security Police Correction Management Training	Air Force Marine Corps
Army	Postal Clerk	Navy Marine Corps
Army	Foreign Language Training	Navy Marine Corps Air Force
Army	Allergy/Immunology	Air Force
Army	Information Specialist	Navy Marine Corps Air Force
Navy	Aviation Maintenance	Marine Corps Coast Guard

Sponsoring Service	Major Interservice Course/ Skill Areas	Other Participating Services
Navy	Cryptologic Courses	Army Marine Corps Air Force
Navy	Diving	Army Marine Corps Air Force Coast Guard
Navy	Musician	Army Marine Corps
Navy	Electronic Principles	Marine Corps Air Force
Navy	Cryptographic Maintenance	Marine Corps Air Force Coast Guard
Navy	Teletype Maintenance	Marine Corps
Marine Corps	Computer Systems, Programming (IBM 360)	Army Air Force Navy
Air Force	Navigator Training	Navy Marine Corps
Air Force	Tempest (Cryptologic Courses)	Army Navy Marine Corps
Air Force	Cryptologic Equipment Maintenance	Army Navy Marine Corps
Air Force	Precision Measurement Training	Army Marine Corps
Air Force	Aircraft Pneudraulic Repair	Army
Air Force	Weather Training	Army Navy Marine Corps
Air Force	Military Dog Handler	Army Navy Marine Corps

Sponsoring Service	Major Interservice Course/ Skill Areas	Other Participating Services
Air Force	Law Enforcement	Navy Marine Corps
Air Force	Fire Control Specialist	Army Marine Corps
Air Force	Nondestruct Inspection	Army Navy Marine Corps
Air Force	Defense Sensor Interpretation and Application Training	Army Navy Marine Corps
Air Force	Air Intelligence Training	Army Navy Marine Corps
Air Force	Lineman Training	Army Marine Corps
Air Force	Professional Comptroller	Army Navy Marine Corps
Air Force	Radio Communications Analysis	Army Navy Marine Corps
Air Force	Voice Processing	Army Navy Marine Corps
Air Force	Cryptoanalysis	Army Marine Corps

Training Technology

The Military Services have been the leaders in the development and use of training technology for many years. Training technology is used to improve the efficiency and effectiveness of military training and, in some cases, to provide training which cannot be provided in any other way. The term "training technology" is used here to encompass methods to structure training courses and the use of hardware, such as computers or simulated equipment for instruction.

Instructional Systems Development. Training effectiveness measures are part of the Instructional Systems Development (ISD) process used by the four Services. Instructional Systems Development is intended to insure that:

o Courses are designed to teach only those tasks which, based
   upon objective field research and analysis of the tasks needed
   to be performed, the graduate will use and which can most
   efficiently and effectively be taught in a formal training
   course.

o Course graduates are able to perform the required tasks taught
   in the course.

Phase I of the ISD process includes five steps: analyzing the
job; selecting tasks for training; constructing job performance measures;
analyzing existing courses; and selecting the organizational setting.

Phase II of the ISD process, the design phase, includes detailing
training objectives and tests, describing student entry characteristics,
and determining the sequence and structure of the training. The objectives
result from the job analysis of what is actually performed in the field.
The tests are designed to determine if the students meet each objective
rather than how well the students perform in relation to the other
students in the course.

The development of the training, Phase III of the ISD process,
includes specification of learning activities, the instructional management
plan and delivery system, reviewing and selecting available existing
materials, and developing and validating new instruction. Validation of
the instruction is important in that it insures that the training teaches
what it is designed to teach before it is put into operation.

Phase IV of ISD, the implementation of the instruction, includes
using the complete management plan and conducting the actual course in
its designated setting.

The final phase of ISD is quality control--as long as the training
is being offered, the effectiveness of the training is monitored.

o Internal evaluations consist of collecting progress data,
   process data, performance data, and pertinent data from students,
   instructors and administrators to insure that the actual
   learning outcomes equal the intended learning outcomes.

o External evaluations require following graduates of the training
   program to their job assignments to determine whether they can
   do the job for which they were trained. Data are collected
   through job performance measures, questionnaires to supervisors
   and graduates, and personal interviews. Informal feedback to
   the external evaluation process includes comments from field
   commanders on the quality or comprehensiveness of the training
   as evidenced by the performance of graduates, results from
   unit training exercises showing deficiencies in graduates'
   skills, and performance of graduates on skill qualification
   tests and skill knowledge tests for promotion.

Specialized Skill Training courses use job task analysis for course design and mixtures of performance-based end-of-course tests, field performance surveys or visits, results of promotion tests and field initiated feedback to measure the effectiveness of the training. Job task analysis is less appropriate for Professional Development Education because it is not directed toward acquisition of specific skills. Professional Development Education is concerned with broader professional development goals in such subjects as engineering, management, and military science. Course design and effectiveness measures for Professional Development Education are more appropriately determined by panels of experts from the field, the school, and the civilian community.

The Defense training establishment uses measures of effectiveness to insure that its training establishment is doing its job. Measures wherever possible are performance-based. Performance-based tests are hands-on tests to determine, for example, whether a nurse can read a blood pressure meter or a rifleman can fire a qualifying score with an M-16. Military training is conducted on a pass-fail basis. Trainees that can perform the required tasks graduate; those who cannot are either retrained, enrolled in a different type of training, or discharged. Field follow-up evaluations insure that training is relevant to tasks performed in the field and that graduates can perform the tasks well.

Each Service uses Instructional Systems Development (ISD) to determine what should be taught in a given course and the most effective and efficient way of conducting the instruction. Tasks which can most effectively be taught in a formal training setting become the basis of the course; those which can be effectively learned on the job are taught in the operational unit. The course is then structured to teach the essential tasks in the most effective and efficient way.

Application of Training Technology in the Field Units. Although the training establishment exists primarily for the support of individual training programs, certain innovations initiated within the training establishment have important benefits in crew and unit training in the field. Unit training benefits the individual in increasing his proficiency as well as making him a more effective member of the unit.

For example, the Services are using various engagement simulation devices to train under conditions more nearly approaching combat than anything before available. To teach battle skills to infantry units, an engagement simulation system based upon low power lasers and microcomputers has been developed. Training units are furnished with rifles, machine guns, tank and anti-tank weapons that are equipped with eye-safe lasers. Sensors, connected to a microcomputer carried by each man or weapon, are mounted on each infantryman, vehicle, and weapon. When a weapon is "fired" a blank round is fired from the weapon and a light beam containing a distinctive code is emitted from the laser. Any sensor that detects the beam records a "kill" if the sensor is located in an area where a hit from that kind of weapon would normally disable the target. The computer signals the soldier when he has been hit and automatically

disables his weapon, removing him from the exercise. These and other simulators not only make possible improved combat readiness, but they also possess the potential for cost savings through reduced ammunition expenditures.

The Department of Defense will continue to take advantage of available and emerging training technology from these initiatives and from other training research and development activities to improve the quality of training and to reduce training time and costs.

APPENDIX A

DETERMINING TRAINING REQUIREMENTS

Discussions of the determination of training requirements in this report reflect a generally uniform approach. The following overview of the methodology for assessing and calculating training requirements is provided as a framework for understanding this approach. As noted, details in calculation may differ to some extent among the Services and among the training categories.

Requirements

All training is accomplished to satisfy the need for personnel with certain types and levels of skills to man the approved or projected force. The Services, over the years, have developed detailed, systematic methods of determining the manpower needed to man and support the forces. The Manpower Requirements Report discusses this process. From these force requirements for manpower, the need for trained personnel with specific skills can then be derived. For example, a given force structure establishes the number of trained enlisted personnel needed. The number of authorized positions within that force structure for radar technicians establishes the basic requirement for trained personnel with that skill. This process is reiterated on a phased basis for all skills and skill levels for each Service, for both officer and enlisted skills. The total of all personnel in all skills needed to perform all the jobs in the force at a point in time represents the total requirement for trained manpower projected for that date.

Inventory Projections

The requirements identified through this process must be measured against the available assets, in terms of trained personnel on hand in each skill and skill level. From this asset base, estimates are made of how many trained personnel will be available at various points of time in the future. These estimates take into account probable rates of change to the current inventory -- through reenlistment, promotion, discharge, death, retirement, or other causes. These estimates are based on the best historical information available, tempered by judgment of how in the future personnel policies, the state of the economy, behavioral patterns, and other factors, many of them difficult to predict, will affect the probabilities that a trained individual will remain in the Service. A comparison of skill requirements and skill inventory projections, over time, establishes the extent of shortage or surplus likely to exist in each skill area by month and year. Adjusting the inventory may entail retraining personnel who are in surplus skills, but to a much greater degree, adjustment is likely to require the training of new accessions at entry level in shortage skill areas. The process

places a demand on the personnel management and training establishments continually to analyze information about attrition as it occurs, by skill and skill level, in order to produce the right number of trained personnel with the proper skills needed to restore and maintain the balance of the skill inventory. The workload thus placed on the training establishment is detailed by graduates needed from courses of various lengths and is measured in terms of average student load, or "training load."

Average Training Loads

Resources (men, money, and materiel) needed for any particular category of training vary with the number of students undergoing training at any given time. Facilities must be constructed and maintained to accommodate these students in training. The training establishment must maintain a sufficient staff of qualified instructors to conduct instruction for the "load" of students. Students and Trainees, as described in the "Individuals" chapter of the Manpower Requirements Report, must be programmed to account for the fact that these personnel are in formal school training and are not available for duty with operational units. All of these personnel must be paid, housed, and supported. The basis for establishing these resource requirements is the "average training load."

The aggregate training load of courses of instruction within a given training category or sub-category for a given period is computed in accordance with the the following formula, except as noted:

$$L = \frac{\sum_{i=i}^{n} \frac{E_i + G_i}{2} t_i}{y}$$

where L is Average Training Load,

 i is a class (1,2,...n) scheduled for a training course within the training category under consideration,

 E is number of expected entrants to scheduled class i,

 G is number of expected graduates from scheduled class i,

 t is the calendar length of the syllabus of class i, and

 y is the length of a calendar year expressed in the same units as t (1 year = 12 months = 52 weeks = 365 days).

Fractions of carryover classes conducted during the year are included as though they were separate classes. However, individuals remaining in class at the end of a period are not counted as graduates, nor are individuals already in a class at the beginning of a period counted as entrants except for purposes of computing training loads for these fractions of courses.

The training load for a category or sub-category of training (e.g., Specialized Skill Training or Functional Training within that category) is the sum of the loads computed for all classes of courses within the category or sub-category.

This method of computation implies "straight-line" attrition, under an assumption that net class attrition occurs at a constant rate during a course. In the relatively few cases when attrition patterns experienced characteristically produce a significantly different distribution of attrition, the more appropriate attrition pattern is used in lieu of the term $\frac{E + G}{2}$.

Since attrition varies for different training programs and is not always spread uniformly throughout the length of a course of training, determining training loads becomes a complex problem in estimation. This process of estimation involves two related factors.

First, across the spectrum of training programs that are within the scope of this report, attrition varies from nearly zero to as high as 25 to 30 percent. Most officer Professional Development Education programs have practically no attrition. For FY 1983, the Services estimate that about 10 percent of new recruits, on a DoD average basis, will not complete Recruit Training because they will be found, in the course of undergoing training, not to have the mental or physical qualifications, or the motivation, for military life. Of these, some will fall ill or go absent without leave. Attrition rates in Specialized Skill Training vary widely, with the longer and more demanding courses tending to have higher losses. Pilot training is near the top of the scale in attrition; the higher rate of losses is based on lack of aptitude or motivation for flying, accidents, and similar causes which are intensified in this type of training. While historical data provide a basis for projecting attrition rates for all types of training, there is a considerable possibility for error based on variance in such factors as student quality and motivation.

A second necessary step in evaluating the effect of attrition is to estimate the phasing of attrition for each training program. In some courses, attrition tends to be higher in the early stages of a course when the inept and those lacking motivation are discovered. In other courses, the bulk of attrition may occur toward the end of the course. The patterns of losses vary widely among types of training and, to the detriment of precise planning, over time. The complexities of the

attrition variable makes it necessary for the Services to use computer
simulations in their training load calculations which take into account
the rates and time-phasing of attrition.

An additional variation is introduced into the conceptual process
of forecasting requirements and planning training loads as described
above by the seasonal and cyclical nature of new accessions to the
Services. Inputs to many of the more stable training programs -- Pro-
fessional Development Education, Flight Training, the Service Academies,
and the most advanced portions of Specialized Skill Training -- are
readily predictable. Inputs to the training programs which are dependent
on new accessions, Recruit Training and Initial Skill Training for
graduates of Recruit Training, are considerably more volatile. The
volume of inputs to these types of training depends on such intangibles
as job opportunities in the civilian economy and the decisions of young
people to enlist, delay enlisting, or not enlist. Moreover, enlistments
are seasonal in nature, following a long-term pattern of "good" and "bad"
recruiting months, whereas phased requirements may move independently of
these seasonal patterns. As a result, training loads for the initial
active duty training programs are generally based on a compromise
involving the timing of predicted enlistments and the capacity of the
training base as well as when the new personnel are needed to fill
vacancies in the job structure. Most of the courses in these programs
are relatively short, and program adjustments can readily be made.

INDIVIDUAL TRAINING FACILITIES AT MAJOR LOCATIONS
AND TRAINING CATEGORY, FY 1983

Facility Location	Student Workload	Training Staff E/S [a/]	
		Military	Civilian

A. Recruit Training

Army

Facility Location	Student Workload	Military	Civilian
Fort Dix, NJ	3,489	867	7
Fort Jackson, SC	6,646	1,349	30
Fort Knox, KY	2,678	599	35
Fort Leonard Wood, MO	3,428	735	21
Fort McClellan, AL	1,602	218	2
Fort Sill, OK	630	73	0
Fort Gordon, GA	0	0	0
Fort Bliss, OK	573	80	2

Navy

Facility Location	Student Workload	Military	Civilian
Great Lakes, IL	6,354	572	2
Orlando, FL	5,214	519	0
San Diego, CA	4,725	453	8

Marine Corps

Facility Location	Student Workload	Military	Civilian
Parris Island, SC	5,859	1,324	55
San Diego, CA	5,513	1,082	55

Air Force

Facility Location	Student Workload	Military	Civilian
Lackland Air Force Base, TX	10,028	781	18

a/ Reflects manpower end-strength (E/S) to include instructors, school/ training center staffs, student supervisors. Excludes training support, Management Headquarters and Base Operating Support.

| | Student | Training Staff E/S [a/] | |
| Facility Location | Workload | Military | Civilian |

B. Officer Acquisition Training

Army

Fort Benning, GA	337	30	3
Fort Monmouth, NJ	240	47	25
West Point, NY	4,150	937	1,158

Navy

Annapolis, MD	4,377	676	736
Newport, RI	876	116	18
Pensacola, FL [b/]	427	-	-

Marine Corps

Quantico, VA	385	226	3

Air Force

Colorado Springs, CO	4,235	1,003	687
Lackland Air Force Base, TX	1,056	215	16

a/ Reflects manpower end-strength (E/S) to include instructors, school/ training center staffs, student supervisors. Excludes training support, Management Headquarters and Base Operating Support.

b/ Manpower not separately identified by training category in manpower documents.

Facility Location	Student Workload	Training Staff E/S [a/]	
		Military	Civilian

C. Specialized Skill Training

Army

Facility Location	Student Workload	Military	Civilian
Aberdeen Proving Ground, MD	2,993	1,144	174
Charlottesville, VA	227	30	0
Fort Belvoir, VA	1,303	586	80
Fort Benning, GA	3,505	1,105	146
Fort B. Harrison, IN	2,800	587	131
Fort Bliss, TX	1,582	876	238
Fort Bragg, NC	806	648	102
Fort Devens, MA	1,023	781	110
Fort Dix, NJ	133	22	0
Fort Eustis, VA	1,910	749	211
Fort Gordon, GA	7,791	2,199	805
Fort Huachuca, AZ	1,140	504	139
Fort Jackson, SC	4,215	736	52
Fort Knox, KY	2,696	1,266	275
Fort Lee, VA	4,824	1,143	278
Fort L. Wood, MO	1,512	492	13
Fort McClellan, AL	1,820	628	95
Fort Rucker, AL	943	303	86
Fort Sam Houston, TX	4,277	870	168
Fort Leavenworth, KA	173	41	16
Norfolk, VA	218	72	0
Fort Sill, OK	2,605	1,215	287
Fort Monmouth, NY	163	71	24
Monterey, CA	3,888	278	951
Redstone Arsenal, AL	1,109	765	293
Rock Island, IL	381	0	85
Savanna Army Depot, IL	131	0	41
Texarkana, TX	178	0	45
Fort Ord, CA	91	46	18

a/ Reflects manpower end-strength (E/S) to include instructors, school/
training center staffs, student supervisors. Excludes training
support, Management Headquarters and Base Operating Support.

Facility Location	Student Workload	Training Staff E/S [a] Military	Civilian
Navy			
Athens, GA	393	50	16
Bangor, WA	262	395	34
Bethesda, MD (Medical)	195	63	26
Charleston, SC	606	468	7
Dam Neck, VA	2,165	1,254	57
Great Lakes, IL	9,273	1,459	41
Great Lakes (Medical)	630	56	9
Groton, CT	2,258	914	11
Groton, CT (Medical)	91	15	2
Gulfport, MS	478	99	11
Idaho Falls, ID	784	536	0
Indian Head, MD	284	91	5
Jacksonville, FL	310	297	0
Lakehurst, NJ	305	146	11
Little Creek, VA	694	157	12
Mayport, FL	206	109	2
Memphis, TN	8,251	1,077	211
Meridian, MS	974	111	10
Newport, RI	714	402	17
Norfolk, VA	1,515	802	22
Oakland, CA	52	8	8
Orlando, FL	4,696	546	15
Panama City, FL	121	111	5
Pearl Harbor, HI	284	278	11
Pensacola, FL	2,068	807	46
Pensacola, FL (Medical)	111	101	32
Philadelphia, PA	344	65	4
Port Hueneme, CA	503	159	28
Portsmouth, VA (Medical)	298	56	2
San Diego, CA	8,333	3,132	172
San Diego, CA (Medical)	1,425	165	12
San Francisco, CA	285	141	23
Schenectady, NY	625	642	0
Vallejo, CA	1,027	516	0
Windsor, CT	220	158	0
Whidbey Island, WA	177	113	0

a/ Reflects manpower end-strength (E/S) to include instructors, school/
    training center staffs, student supervisors. Excludes training
    support, Management Headquarters and Base Operating Support.

Facility Location	Student Workload	Training Staff E/S [a] Military	Civilian
Marine Corps			
Albany, GA	79	21	2
Camp Lejeune, NC	1,966	850	20
Camp Pendleton, CA	788	414	7
Parris Island, SC	67	13	0
Quantico, VA	1,108	984	40
San Diego, CA	274	61	0
Twentynine Palms, CA	1,630	697	48
Air Force			
Chanute Air Force Base, IL	5,212	1,209	487
Fairchild Air Force Base, WA	231	321	19
Goodfellow Air Force Base, TX	1,579	437	35
Homestead Air Force Base, FL	54	109	3
Keesler Air Force Base, MS	7,289	1,793	647
Lackland Air Force Base, TX	3,316	948	199
Lowry Air Force Base, CO	5,263	1,694	347
Sheppard Air Force Base, TX	5,666	911	472

a/ Reflects manpower end-strength (E/S) to include instructors, school/ training center staffs, student supervisors. Excludes training support, Management Headquarters and Base Operating Support.

Facility Location	Workload	Training Staff E/S [a]	
		Military	Civilian

D. Flight Training

Army

Fort Rucker, AL	1,840	1,464	485

Navy

Chase Field, TX	204	1,463	130
Corpus Christi, TX	370	959	134
Kingsville, TX	204	1,525	92
Meridian, MS	128	1,190	63
Pensacola, FL	666	1,676	192
Sacramento, CA	--	19	1
Whiting Field, FL	1,057	1,234	78

Air Force

Columbus Air Force Base, MS	449	1,298	86
Lackland Air Force Base, TX	184	9	0
Laughlin Air Force Base, TX	492	1,365	129
Mather Air Force Base, CA	1,136	906	148
Randolph Air Force Base, TX	177	771	145
Reese Air Force Base, TX	440	1,166	168
Sheppard Air Force Base, TX	333	288	25
Vance Air Force Base, OK	429	379	13
Williams Air Force Base, AZ	469	1,319	148

[a] Reflects manpower end-strength (E/S) to include instructors, school/ training center staffs, student supervisors. Excludes training support, Management Headquarters and Base Operating Support.

Facility Location	Workload	Training Staff E/S [a] Military	Civilian
E. Professional Development Education			
Army			
Carlisle Barracks, PA	236	40	44
Fort Belvoir, VA	228	42	169
Fort Bliss, TX	260	70	20
Fort Leavenworth, KA	798	216	143
Fort McNair, DC	333	44 [b]	27
Navy			
Monterey, CA	1,436	88	211
Newport, RI	456	160	151
Norfolk, VA	336	21	72
Marine Corps			
Quantico, VA	320	183	49
Air Force			
Bolling AFB DC	9	21	2
Gunter Air Force Station, AL	219	58	21
Maxwell Air Force Base, AL	1,552	470	144
Wright-Patterson Air Force Base, OH	1,226	246	277

a/ Reflects manpower end-strength (E/S) to include instructors, school/ training center staffs, student supervisors. Excludes training support, Management Headquarters and Base Operating Support.

b/ 14 Army, 30 Other Services

Facility Location	Student Workload	Training Staff E/S [a]	
		Military	Civilian

F. One-Station Unit Training (OSUT)

Army

Facility Location	Student Workload	Military	Civilian
Fort Benning, GA	9,976	2,478	29
Fort Bliss, TX	1,460	549	18
Fort Dix, NJ	2,634	695	22
Fort L. Wood, MO	4,418	1,600	73
Fort Sill, OK	5,014	1,249	61
Fort McClellan, AL	2.684	587	21
Fort Knox, KY	3,129	1,343	161

[a] Reflects manpower end-strength (E/S) to include instructors, school/ training center staffs, and student suspensors. Excludes training support, management headquarters, and base operating support.

APPENDIX C

SUMMARY OF TOTAL FUNDING FOR INDIVIDUAL
TRAINING AND EDUCATION, BY SERVICE
AND APPROPRIATION, FY 1981-83
($ millions)

Appropriation	FY 81	FY 82	FY 83
Army			
Operations and Maintenance	$1,835.6	$2,174.3	$2,237.8
Military Personnel	1,767.3	1,899.4	2,119.0
Reserve Personnel	130.0	182.8	206.6
National Guard Personnel	213.1	242.7	280.1
Aircraft Procurement	8.4	48.0	110.9
Missile Procurement	5.5	.5	1.0
Procurement Weapons and Tracked Combat Vehicles	9.2	5.3	17.7
Procurement of Ammunition	6.7	1.7	-
Other Procurement	41.3	77.0	25.3
Military Construction	65.1	103.2	146.2
Total Army	$4,082.0	$4,735.0	$5,144.6

Appropriation	FY 81	FY 82	FY 83
Navy			
Operations and Maintenance	$ 863.5	$ 993.1	$1,092.4
Military Personnel	1,672.7	1,719.1	1,945.6
Reserve Personnel	25.9	29.2	32.8
Aircraft Procurement	143.7	155.1	201.3
Other Procurement	87.1	79.6	80.3
Military Construction	38.3	101.4	107.2
Total Navy	$2,831.1	$3,077.6	$3,464.3
Marine Corps			
Operations and Maintenance	$ 101.2	$ 113.6	$ 120.8
Military Personnel	532.2	562.5	672.8
Reserve Personnel	47.0	55.4	57.9
Procurement	19.1	16.2	40.0
Total Marine Corps	$ 699.4	$ 747.8	$ 891.5

Appropriation	FY 81	FY 82	FY 83
	Air Force		
Operations and Maintenance	$1,014.3	$1,213.3	$1,348.6
Military Personnel	1,246.8	1,344.2	1,574.0
Reserve Personnel	30.3	36.9	41.2
National Guard Personnel	42.8	51.8	60.4
Aircraft Procurement	29.1	109.8	114.1
Other Procurement	12.6	17.0	24.5
Military Construction	40.9	69.8	107.4
Total Air Force	$2,416.9	$2,842.7	$3,270.2
Total Department of Defense	$10,029.4	$11,402.7	$12,770.5

Note: Totals may not add due to rounding. These totals exclude funding for individual education and training programs for which loads are not requested and for which funds were not shown in the funding tables in Chapter X (e.g., ROTC).

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